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VIRGINIA MEDICAL

January 1987, Volume 114, Number 1

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LETTERS TO THE EDITOR

New guidelines for MSVRO carry great expectations

Delegates to The Medical Society of Virginia's annual meeting should be congratulated on their adoption of specific recommendations to improve the review process and methodology of the Medical Society of Virginia Review Organization. [Editors' Note: The recommendations are published in full on pages 40-41 of this issue.] Four of these recommendations deserve special emphasis:

1. "Assessment of each individual case should be measured by the 'ordinary standard of care' in Virginia, and the defendant physician's *overall pattern of care* [author's italics] should be a critical determinant."
2. "There should be a guarantee of adequate due process at the Quality Assurance Committee hearing before, rather than after, the sanction recommendation."
3. "Ad hoc advisory panels should be established to assist members of the Quality Assurance Committee. Such ad hoc panels should be selected from a list provided by the state's respective specialty societies and should include experienced physicians in the same specialty and the same type of clinical practice."
4. "The mission of the MSVRO must be to satisfy HCFA regulations, but the mission must also be to satisfy The Medical Society of Virginia as well as practicing physicians in Virginia."

The critical question is what leeway the federal guidelines will permit and how earnestly the leadership of the MSVRO will make an effort to meet the expectations of Virginia physicians. It is clear that the majority of practicing physicians in Virginia are expecting decency, civility and fairness in *any* review process.

The many resolutions that the Society adopted for MSVRO improvement do constructively address most of the membership's concerns—at least on paper. Now it behooves each Virginia physician to critically assess the MSVRO's compliance and implementatiaon of these commitments.

E. Armistead Talman, MD
401 Johnston-Willis Drive
Richmond VA 23235

Educational influenza package is available for your programs

The American Thoracic Society has developed an educational package on influenza for health professionals. Funding was provided by DuPont, makers of Symmetral® (amatandine). Included in the package is a 30-minute videotape, slides with script, program guides and reprints on influenza. The kit is graphic, informative and timely. Comments regarding influenza vaccination prophylaxis are excellent. Potential utility of amatandine is stressed, perhaps to a greater degree than the usual sense of balance would seem prudent, while tending to understate potential side effects. Nevertheless, the entire program has merit.

Its distribution to primary care physicians and other health personnel is encouraged with the feeling that its positive educational benefits outweigh its weaknesses. We urge you to consider using this program for one of your monthly medical meetings. The program is available through the regional officers of the American Lung Association of Virginia or call the toll-free number 1-800-345-LUNG.

James A. Long, MD
13th and Magnolia Street
Waynesboro VA 22980

Community service motivates long-running success

In 1962, the Richmond Academy of Medicine Auxiliary ventured into an endeavor for the benefit of the less fortunate in the community, the annual Antiques Show and Sale. Were it not for the enthusiasm and dedication of all Richmond auxilians and the financial, physical and emotional support of our physician spouses, this event could not have raised over $300,000 in 25 years. This year's show, on

February 5 to 8 will benefit Camp RAMA, St. Joseph's Villa respite care program, the special equipment fund of the Cerebral Palsy Center, and Science Museum of Virginia, where the show will be held. [Editors' Note: Further information appears on page 22 of this issue.]

We will greatly appreciate the support of Virginia physicians. I will be happy to accept (tax-deductible) contributions, reservations for the Preview Sale and Champagne Reception, and orders for admission tickets.

Elke Gayle

Chairman, RAMA Foundation
PO Box 14508, Richmond VA 23221

Chain Letter

As a delegate to The Medical Society of Virginia's annual meeting, Dr. C. C. Hatfield heard the House discuss the Society's financial needs, as reported on page 38 of this issue. When he got home, Dr. Hatfield wrote a letter to James L. Moore, Jr., MSV Executive Vice President. Mr. Moore shared the letter with AMA President William S. Hotchkiss and MSV President Richard L. Fields, who were moved to write letters in response. All three letters follow.

Dear Mr. Moore,

It was surprising to learn at the annual meeting that there are more than 700 dues-exempt members of The Medical Society of Virginia. Many of these exemptions have been made to reward Society members for meritorious service to the Society. Most of us have achieved this distinction by living long enough to reach an age qualifying us for the honor.

As I told the House of Delegates when the budget cuts were being discussed, the financial bind in which the Society finds itself at this time leads me to feel that I am getting a free ride when I ought to buy a ticket. My check for two years' dues is enclosed.

It would be a generous gesture for all dues-exempt members to pay whatever dues they feel they are able to afford, indicating their support for the Society at a critical time. I perceive this as an opportunity to assist the Society through what is apparently a temporary financial strait.

C. C. Hatfield, MD

Drawer CC
Saltville VA 24370

Dear Dr. Hatfield,

If there was ever a letter that deserves a response, yours does. One of my major goals during my year as President of The Medical Society of Virginia will be to try to unite the physicians of the Commonwealth of Virginia under the leadership of the Society in order to meet the serious challenges that face us today. We have lost many members who object to unification, and there are nearly 6,000 other physicians practicing in Virginia who are not members of the Society.

At a time when we are working as hard as possible to achieve meaningful tort reform and to solve many of the other problems, I feel it is imperative that all physicians join with us. Your letter expresses the kind of spirit I wish I could see in every doctor in Virginia. Those of us who know you realize that your action came from a sincere concern, a concern for the future of medicine, not your own welfare. At your age, you could walk away from the practice of medicine. Younger physicians cannot, and yet it is they who are most often reluctant to join with us.

Dr. Hatfield, I thank you, and I salute you.

Richard L. Fields, MD

8316 Arlington Boulevard
Fairfax VA 22031

Dear Mr. Moore,

I support and applaud the suggestion made by Dr. C. C. Hatfield during the House of Delegates' second session that the Society's dues-exempt members pay one year of dues or make a contribution to help the Society through a difficult financial time. Here is my check for $600, representing two years of dues.

William S. Hotchkiss, MD

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MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

MSV TORT REFORM CAMPAIGN IS READIED

As Virginia's legislators convene in Richmond this month for the 1987 session of the General Assembly, The Medical Society of Virginia's Professional Liability Committee is completing plans for the tort reform campaign authorized by the House of Delegates at the annual meeting, as reported on page 32 of this issue.

Saliently, the committee has beefed up the Society's professional lobbying capability, and, to give these on-site efforts the strongest possible backup at the constituency level, the committee is building a statewide network of physician volunteers who will operate as leadership groups in their communities in support of tort reform goals.

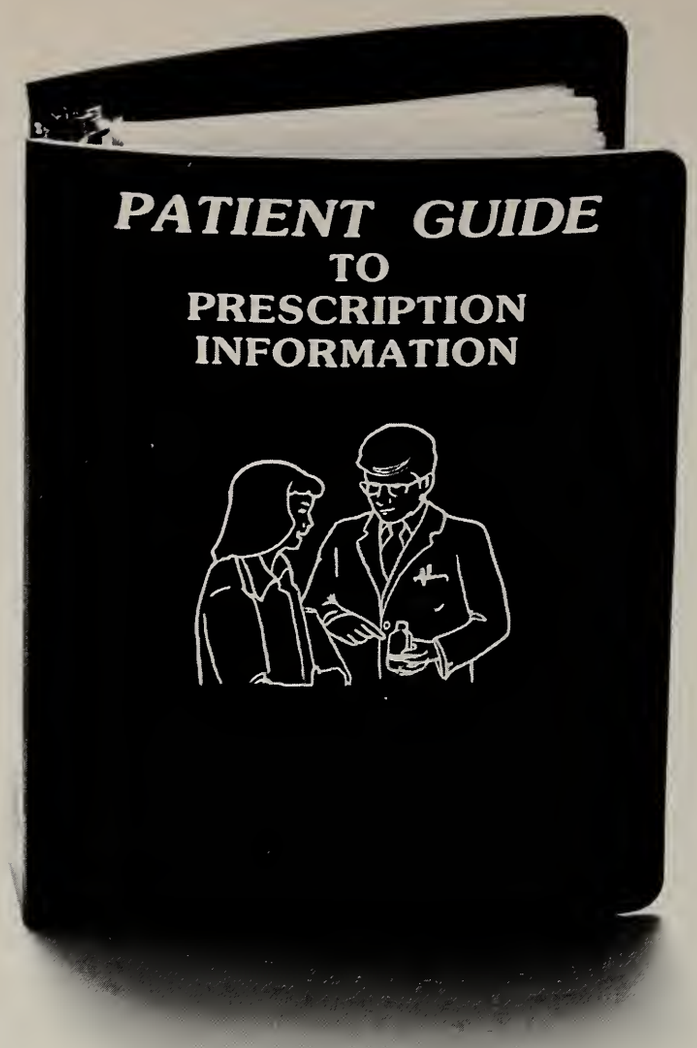
On the professional side, Lawrence H. Framme III, attorney and chairman of the Democratic Party in Virginia, has been engaged to head up the lobbying effort. "Larry is enthusiastic, bright, well-versed in political issues, and is working hard to grasp our problems," Dr. Ronald K. Davis, Professional Liability Committee chairman, told Virginia Medical's reporter.

The network of physician volunteers is to be the conduit for educational material on tort reform--material designed to inform patients, the media, citizens' groups, and community leaders to the ramifications of the liability crisis in general and its catastrophic effect on medicine in particular. The Society's public relations consultants have been busy preparing all sorts of support literature to be provided to these leadership groups; the patient brochure bound into the centerfold of this issue is a sample of their efforts. Through the network will also be channeled news of what is happening at the legislature so that responses from local constituencies can be generated with immediacy.

"I think the doctors are eager to help in this campaign, and I think this gives them an opportunity to do it in an effective way," said Dr. Davis. "This liability crisis will only get changed when people want it changed, and what we'll be doing is making the information available that will help people decide to change it."

Dr. Davis and his committee are to meet this month with presidents of all the component societies

continued on page 7



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to develop recruiting plans for the network. Get ready to volunteer! It's your chance to help heal the paralyzing liability crisis!

FORECAST OF LIABILITY ISSUES AT THE GENERAL ASSEMBLY

By Allen C. Goolsby III

The past twelve months have seen several dramatic developments in the area of liability insurance and tort law in Virginia. Physicians have been affected particularly by the Boyd v. Bulala decision declaring the medical malpractice liability cap unconstitutional and by the non-renewal policy adopted by the Pennsylvania Hospital Insurance Company. The general public has felt the effects of the decreasing availability and affordability of liability insurance in diminished municipal services, withdrawn product lines, and cancelled public events. As a result, legislators at the 1987 General Assembly session are likely to devote considerable time and attention to liability issues, both medical and general.

The initial focus of that attention is likely to be the report of the Joint Subcommittee Studying the Insurance Crisis and the Need for Tort Reform, chaired by Sen. William F. Parkerson, Jr.(D-Richmond). As this was written the subcommittee's completed report was not yet available, but its most significant recommendations for physicians are summarized below.

1. The subcommittee voted to recommend that the statute of limitations for medical malpractice actions in connection with children be amended as follows: actions brought in connection with an injury to a child under 6 years must be brought before the child's eighth birthday, and actions brought in connection with an injury to a child of 6 years or older must be brought wthin two years.

2. The subcommittee voted to recommend that health care providers who, in good faith, perform emergency obstetrical services without compensation on a woman in active labor be subject to the Good Samaritan provisions, i.e., that they be immune from liability for civil damages.

3. The subcommittee by divided vote recommended a cap on non-economic damages to be awarded against all defendants in a single action equal to the greater of a) $250,000 or b) three times the actual damage suffered by the plaintiff.

4. The subcommittee voted to recommend that the court have the authority on its own motion

or on motion of the parties involved to sanction attorneys or parties who file frivolous motions or pleadings.

5. It voted to recommend that most exemptions from jury duty be eliminated, except those for such key public officials as the President of the United States and the Governor.

6. It voted to recommend requiring the court to establish a schedule of periodic payments for awards of future damages exceeding $250,000.

In addition to the Parkerson subcommittee report, it is likely that legislation will be proposed to establish alternative compensation schemes to the current tort system for infants who suffer brain damage during delivery and for children who suffer permanent handicaps as a result of immunization.

Finally, The Medical Society of Virginia will propose amendments to the statute establishing the Joint Underwriting Association to 1) increase the limits on coverage the association is authorized to write and 2) place a cap on the financial exposure of the physician participants in the association.

Although a number of health-related issues are expected to be heard, it is clear that physicians will be most interested in the proposals outlined above.

TEXAS DOCTOR TO HEAD BOARD OF MEDICINE

Dr. Hilary H. Conner, deputy commissioner of human services for Texas, has been appointed to the new post of executive director of the Virginia State Board of Medicine. The $76,213-a-year post was created by the 1986 General Assembly on the recommendation of a study committee of The Medical Society of Virginia, Dr. Charles M. Caravati, Jr., chairman. The committee recommended hiring a physician as full-time director for the Board so that a physician would be available at all times to review complaints.

Dr. Conner, 65, was to assume the position early this month. A native of Providence, Rhode Island, he was graduated from Providence College and earned his medical degree at the Tufts University School of Medicine. He also holds a master's degree in public health from the University of North Carolina. Before going to Texas, he was regional administrator for the U.S. Public Health Service in Denver, and before that he was a pediatrician in private practice for 16 years.

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Dr. Ella M. Dickinson

Fincastle — P.O. Box 236, Fincastle, Virginia 24090
Dr. William C. Crow, Jr. and Dr. Clarke B. Andrews

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Valley North — 307 Hershberger Road N.W., Roanoke, Virginia 24012
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West Salem — West Salem Plaza, Salem, Virginia 24153
Dr. Preston H. Edwards and Dr. Marc G. Nevin

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WINNERS

Winner Moore with Dr. Caravati

To **Dr. Michael J. Moore,** an internist with a specialty in communications, went the 1986 Physician Award for Community Service. The presentation was made by **President Charles M. Caravati, Jr.,** at the banquet concluding The Medical Society of Virginia's annual meeting in Williamsburg.

Medicine is Dr. Moore's profession, practiced at the Lewis-Gale Clinic in Roanoke. As a volunteer, he is educator, author, and public speaker on behalf of people all over Roanoke and the Shenandoah Valley. Preventive medicine is his message—teaching people to take care of themselves. To spread this message he speaks at local schools, holds health education classes for employees and the public, and writes fact sheets and develops brochures, sharing them with his colleagues and seeking their help in getting the information to the community via handouts, newspaper, radio, and TV.

The Roanoke Academy of Medicine backed Dr. Moore's pamphlet about vitamins and minerals. You may be wasting your money, the pamphlet advised; supplements are needed only when an illness hinders absorption of vitamins or when the diet is grossly inadequate. From plates provided by the U.S. Department of Transportation, he developed a brochure on drunk driving to augment the driver training programs of the 12 high schools in the Roanoke area; the Academy underwrote the printing of 4,000 copies. Of recent authorship is his one-man attack on drug abuse, "The Facts of Cocaine"; it was published as a six-page leaflet under the sponsorship of the Lewis-Gale Clinic.

The cocaine brochure is dedicated to Dr. Moore's parents, F. J. Moore, MD, and his wife, Maurnetia L. Moore, RN. They reared Mickey Moore in the coal mining town of Affinity, near Beckley, West Virginia, and after he became an MD (Medical College of Virginia, M-48) and had interned (Ohio Valley General Hospital, Wheeling, West Virginia), the new MD returned to Affinity to practice with his father for six months. After that came a residency at Bowman-Gray, marriage to Mary Lou Miller of Norfolk, and a two-year stint as a captain in the Air Force. They moved to Roanoke in the mid-Fifties and there reared a daughter and three sons, all of them now grown: Margaret, now Mrs. William Robertson; Michael Jefferson, Thomas Wright, and John Miller Moore.

When the children were little, Dr. Moore taught Sunday school at St. John's Episcopal Church, and he has been a member of the vestry. His community work also includes training rescue squad volunteers and leading, in 1981-1982, the medical division of Roanoke's United Way. He has served as president of the Roanoke Academy and as a member of the Regional Health Planning Council.

Dr. Moore's patients have been major beneficiaries of his educational endeavors, and last year he was given *Patient Care*'s Award for Excellence in Patient Education by a primary care physician in a private practice setting; the citation praised his "consistent, persistent, and continuing effort to improve his 'message.'" In peer education he's a winner, too; his article on how to promote efficiency in office procedures won him *Medical Economics*' top award for writing in 1965 as "an original and useful contribution to the economic knowledge of the medical profession."

The Community Service Award is sponsored by the A. H. Robins Company. Dr. Moore is the 24th recipient.

Fourteen scientific exhibits were on display at the annual meeting, and the judges wound up pinning blue ribbons on two of them. Tied for first place were 1) a clinical presentation of nose reconstruction by a group of plastic surgeons headed by **Dr. Jerome E. Adamson**, Norfolk, and 2) "Images of Madness," a professionally mounted exhibit showing how Western cultures have viewed mental illness, sponsored by the Psychiatric Society of Virginia.

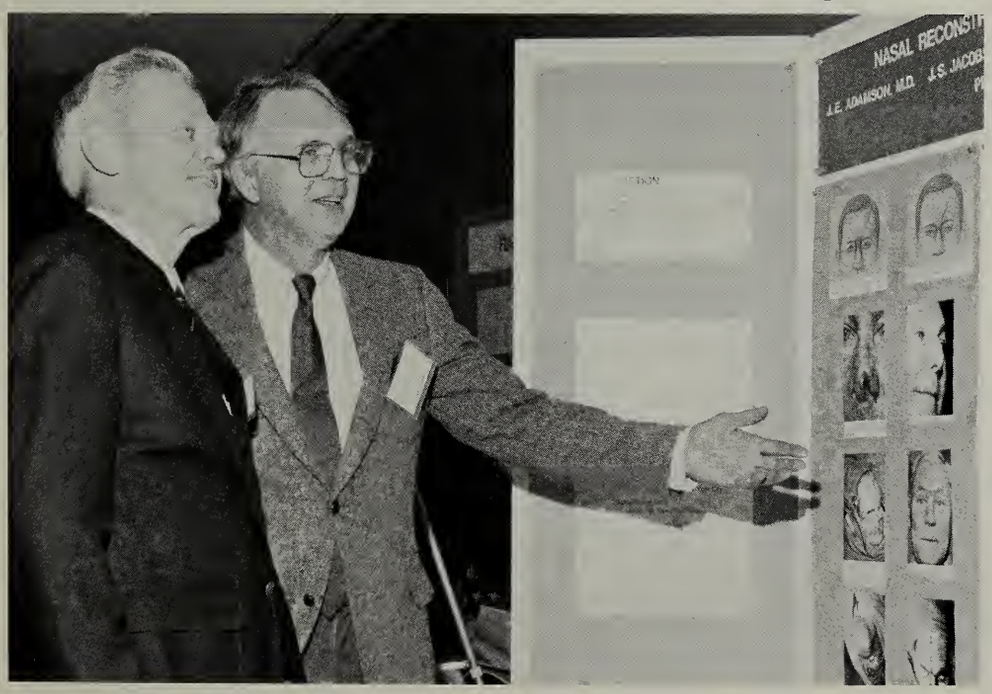
Second place went to "Organ Transplantation and Donor Awareness in Virginia," submitted by **Dr. Leslie E. Rudolf**, Charlottesville, and **Dr. William M. Eagles**, Richmond.

Two radiologists, **Dr. Barry T. Katzen** and **Dr. Arina van Breda** of Alexandria, won third prize with an exhibit illustrating the role of digital subtraction angiography in the evaluation of vascular disease.

In the commercial exhibit area, **Dr. Hugh G. Stokes,** Williamsburg, and **Dr. R. B. Seal**, Portsmouth, won watches at the John P. Pearl booth; **Dr. Roger W. Litwiller**, Roanoke, won an art book at the A. H. Robins booth; and at the E. F. Hutton booth, **Dr. Gerald W. Roller,** Roanoke, and **Dr. W. R. Watkins**, South Boston, won calculators, while **Dr. William H. Cook, Jr.**, Radford, won a subscription to an investment publication.

Dr. Richard A. Bendall, Madison Heights, was the big winner in the golf tourney at the annual meeting. He had the lowest gross, which gave him the Society's Challenge Cup, and also won longest drive and closest to the pin. Low net went to **Dr. Joseph H. Callicott, Jr.**, also of Madison Heights, with **Dr. Harry G. Plunkett, Jr.**, Norfolk, runner-up. All the golfers pocketed sleeves of golf balls donated by St. Paul Fire & Marine.

In the tennis tourney, **Dr. Anthony P. Sakowski**, Richmond, took the men's singles title, with **Dr. Philip M. Borges**, Arlington, as runner-up. The other tennis events were rained out. ■



Winner Adamson shows his exhibit to Dr. Philip O. Geib, Portsmouth

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Joel R. Poole, MD, Endocrinology, 1043 Oaklawn Dr., Culpeper VA 22701

Fairfax County Medical Society

Henry M. Bowers, Jr., MD, Pathology, 507 Summers Ct., Alexandria VA 22301

Fredericksburg Area Medical Society

George E. Anderson, MD, Anesthesiology, 209 Morningside Drive, Fredericksburg VA 22401

Norfolk Academy of Medicine

Wendy J. Marshall, MD, General Surgery, 825 Fairfax Ave., Norfolk VA 23507

William C. Petersen, MD, Anesthesiology, 800 W. Olney Rd., Norfolk VA 23507

Roanoke Academy of Medicine

George D. England, MD, Neurosurgery, 1315 Second St., SW, Roanoke VA 24016

Lee T. Helms, MD, Ophthalmology, 400 Burwell St., Salem VA 24153

Southside Virginia Medical Society

Teresita C. Dionisio, MD, Pediatrics, 406 Buffalo St., Farmville VA 23901

Southwestern Virginia Medical Society

William M. Kauffman, MD, Diagnostic Radiology, PO Box 69, Pulaski VA 24301

Albert J. Trimarchi, MD, Anesthesiology, Rt. 1, Box 346-A, Blacksburg VA 24060

Tri-County Medical Society

Hamdel Esmaili, MD, Psychiatry, 3000 Voyager Ct., Chesapeake VA 23321

William G. Jackson, MD, Family Practice, 342 Babbtown Rd., Suffolk VA 23434

Alfred J. Martin Jr., MD, General/Vascular Surgery, 707 Gittings St., Suffolk VA 23434

Jeffrey B. Persons, MD, Orthopedic Surgery, 424 N. Main St., Suffolk VA 23434

Virginia Beach Medical Society

Paul J. Abbott, MD, Orthopedic Surgery, 1016 1st Colonial Rd., Virginia Beach VA 23454

Dorotea M. Calilung, MD, General Practice, 1420 Lake James Dr., Virginia Beach VA 23464

Rene B. Schoenfeld, MD, Psychiatry, 2604 E. Lake Dr., Virginia Beach VA 23454

Thomas K. Tsao, MD, Psychiatry, 2697 International Pkwy., Virginia Beach VA 23452

Robert D. Vorona, MD, Internal Medicine, 1008 1st Colonial Rd., Virginia Beach VA 23454

Wise County Medical Society

Sharad B. Patel, MD, Anesthesiology, PO Box 109, Appalachia VA 24216

Residents

Jenny K. Cushing, MD, Internal Medicine, Route 1, Box 181, North Garden VA 22959

John M. Parkinson, MD, Ophthalmology, 1037 St. Ann's Place, Richmond VA 23225

Eileen S. Parish, MD, Endocrinology, 128 Ivy Dr., Apt 9, Charlottesville VA 22901

Anthony J. Scarcella, MD, Pediatrics, 3705 S. George Mason Dr., Falls Church VA 22041

Roger A. Watkins, MD, 115 Land's End Way, Virginia Beach VA 23451

Charity M. Wertz, MD, Family Practice, 208 Forest Dr., Blackstone VA 23824

Nathan D. Zasler, MD, Preventive Medicine/Rehabilitation, 6933 Starview Ct., Richmond VA 23225

Military

David N. DuBois, MD, Emergency Medicine, 4311 Brighton Lane, Chesapeake VA 23321

John J. Gill
Certified Public Accountant

wishes to announce that

Gay H. Felch

formerly
Budget Director at Maryview Hospital, Portsmouth, Virginia

is now employed with his firm as
Senior Consultant

offering services in areas of healthcare project feasibility studies, Physician Hospital joint ventures and consulting services to hospitals, Physicians and businesses.

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DISCIPLINE WITHIN

Innovation and Cooperation Enhance Policing Mechanism

Gerald J. Bechamps, MD, *Winchester, Virginia*

Most members of the medical profession rarely need to communicate with their state licensing board beyond their initial licensure. In training, one is usually not aware of the tremendous imimplication of the powers conferred when one is granted a license by a state authority to practice medicine, and it is only when we physicians settle into our lifetime practices that we begin to see, over a long period of time, the problem of impaired physicians. All physicians have seen on their own hospital staff or professional association physicians who are impaired by alcohol and substance abuse, by deterioration of physical and mental skills, and by incompetency through deficiency in reeducation.

What have we done about it? The probability is very little if anything at all. "That's their problem or somebody else's problem" is the frequent response we find from some of our peers; and we continue to pursue our individual careers and practices. It has been called a "conspiracy of silence" by many critics, in that we, as professionals, are protecting "bad doctors" from the public rather than protecting the public from bad doctors. Until recently, we have been unresponsive to the need for public protection and to press criticism that disciplinary actions by medical boards have been woefully inadequate. In today's environment of freedom of information and investigative reporting, it is not uncommon to see banner headlines touting the improper or negligent actions of a practicing impaired physician.

In 1975, the American Medical Association defined the impaired physician as "one who is unable to practice medicine with reasonable skill and safety to patients because of physical or mental illness, including deterioration through the aging process or loss of motor skills or excessive use or abuse of drugs, including alcohol." What is the extent of the problem with the impaired physician? In 1981, the best accepted national prognosis was that out of every 100 physicians now licensed, ten will appear before an examining board or medical disciplinary board during their practice lifetime. Of these ten, an average of three of these cases will be for alcohol abuse, three for drug abuse, 1.5 for mental or physical illness, and 2.5 for miscellaneous problems. Physicians develop drug and alcohol dependencies at a rate 30 times higher than the general population, and since medicine is a highly visible profession, it is no wonder that the public demands a level of quality in the delivery of health care service by an unimpaired physician and a basic stan-

Dr. Bechamps is immediate past president of the Virginia State Board of Medicine. Address correspondence to him at PO Box 2698, Winchester VA 22601.

dard of practice below which medical activity will not be tolerated.

In the Commonwealth of Virginia, The Medical Society of Virginia has developed an excellent program for the rehabilitation of the health care professional impaired by substance abuse. However, it is the responsibility of the Virginia State Board of Medicine to insure the welfare of the citizens of the Commonwealth by settting standards for competency of the entering health professional and protecting the citizens from immoral, incompetent, and impaired professionals. We live in an informational society and a political environment that demands more public accountability, particularly from government agencies.

THE Virginia State Board of Medicine, created by Title 54, Chapter 12, Section 282 of the Code of Virginia, has been an innovator, a leader, and a cooperative partner in responding to societal needs of the 1980s. The Board, composed of ten medical physicians (one from each congressional district), one osteopathic physician, one podiatrist, one chiropractor, one clinical psychologist, and two citizen members, works under the umbrella agency of the Department of Health Regulatory Boards. The latter provides administrative function, policy directions, logistical support, and investigative staff from its compliance division. The Board of Medicine has an executive secretary, deputy secretary for discipline, two paralegal assistants, a secretary for licensure reciprocity, clerical personnel, an assistant attorney general for legal counsel and two assistant attorney generals for prosecution of violation of the Medical Practice Act.

Individual Board members spend an average of 25 days a year on Board business away from their individual practices. They discharge their duties through a number of committees, i.e., Executive Committee, Credentials Committee, Legislative Committee, various ad hoc committees, and innumerable informal conference committees. The latter are committees of three Board members who meet informally with the practitioner and his lawyer to try to make an appropriate decision regarding the practitioner's alleged violation of the Medical Practice Act. There are three formal full Board hearings a year to resolve other issues and to provide formal administrative hearings for those practitioners requesting or requiring the same.

With this organizational structure, the Board has been able to accomplish many things in the past few years. Innovative ideas, such as the telephone conference call of the Executive Committee for summary suspension of a practitioner's license when he is a substantial

Society's Program Identifies, Treats Impaired Physicians

THREE years ago The Medical Society of Virginia instituted the Physicians' Health and Effectiveness Program to aid in the investigation and intervention and to promote the rehabilitation of Virginia physicians impaired by substance abuse or mental or physical disability. A coordinated effort between The Medical Society of Virginia and the Virginia State Board of Medicine facilitates early identification and treatment of impaired physicians in the Commonwealth. The Society's program is designed to assist troubled physicians before they endanger either their patients or themselves.

Under the current arrangement, the Society is contacted by the Board if there is a reason to believe that a physician being investigated by the Board is impaired.

When a report of impairment is received from other sources, a panel of the Physicians' Health and Effectiveness Committee evaluates the evidence to determine if a problem does exist. If so, a specially trained physician-intervener advises the troubled colleague of the need for assistance, and tries to persuade him/her to enter the appropriate course of treatment. Following treatment, a period of monitoring is provided in the home community to ensure that the physician has no recurrence of the problem.

By making this commitment to its members, The Medical Society of Virginia has helped many troubled physicians free themselves of the debilitating effects of impairment. The Physicians' Health and Effectiveness Program is a positive, non-punitive approach to end the waste of lives and careers caused by the problems of substance abuse.

DAVID G. FLUHARTY, JR., MD

Dr. Fluharty is chairman of The Medical Society of Virginia's Physicians' Health and Effectiveness Committee. Address correspondence to him at PO Box 1774, Newport News VA 23601.

Patient Relations Committee Moves Quickly on Complaints

The Richmond Academy of Medicine has a Patient Relations Committee to deal with complaints against physicians. Complaints must be put in writing and signed. Each is then assigned to a member of the committee, who reviews the situation with the patient and the physician and makes suggestions for resolution of the difficulty.

The committee deals with approximately 45 complaints per year, and the number has remained fairly constant. Most complaints arise because people simply don't listen to each other. They often center around fees, medical records, lateness for appointments, or similar matters. The majority of complaints are resolved in very short order.

There is a mechanism for dealing with physicians who are chronic offenders. Anyone accumulating three complaints within five years is called in for counseling by the Patient Relations Committee. First of all, the situation is reviewed with the entire committee and presented to the board of directors of the Richmond Academy of Medicine. If the board concurs that counseling is appropriate, an ad hoc committee is appointed for this purpose. This committee consists of three senior physicians; one of them is usually in the errant member's own subspecialty of medical practice. This ad hoc committee meets with the individual, points out that his/her complaint rate is much higher than the average, looks at underlying reasons and patterns in the complaints, and makes some rather strong suggestions that the situation be remedied. This has proven to be quite effective in that we currently have no "repeat offenders" in the Richmond Academy of Medicine.

The Patient Relations Committee of the Richmond Academy of Medicine works in close cooperation with The Medical Society of Virginia's Committee on Physicians' Health and Effectiveness. For example, if the problem appears to be one of alcohol abuse, the matter is referred to this committee, which will see to it that the involved physician is put into a treatment program to rectify the situation. A number of Richmond Academy of Medicine members serve on this committee, thus assuring liaison between the two groups.

The Academy has on rare occasion found it necessary to refer an individual directly to the Virginia State Board of Medicine, with good results.

Thus, in the Richmond area, through the Richmond Academy of Medicine, through The Medical Society of Virginia, and through the Virginia State Board of Medicine, we have a very active mechanism for professional disciplinary problems.

Charles L. Cooke, MD

Dr. Cooke is chairman of the Richmond Academy of Medicine's Patient Relations Committee. Address correspondence to him at 7702 Parham Road, Richmond VA 23229.

danger to the safety of the public, and installation of a toll-free line to the office of the Health Regulatory Boards show a response to public need. Informal conference committees to facilitate the disposition and adjudication of complaints received by the Board of Medicine are an innovation.

Cooperation with the Governor's office in supporting the addition of two public members to the Board to enhance public accountability and in developing legislation to strengthen the practice of psychology in state institutions shows the Board's willingness to work with government in achieving desired common goals for the public welfare. A large cooperative effort of judges, lawyers, public members, legislators, governmental offices, and health professionals serving on a Medical Society of Virginia committee to study the Board of Medicine resulted in successful legislation to strengthen and expand reporting laws, to use experts in disciplinary proceedings, and to establish a position of executive director at the Board office to provide continuing daily professional expertise and guidance. Cooperation with the Society in its impaired professional program resulted in a memorandum of understanding to assist in the rehabilitation of those individuals and yet work within the statutory requirements.

The Board has shown leadership by providing information and testimony in committee and discussing bills with legislators that affect the practice of medicine in the Commonwealth. It has advocated publication of its disciplinary proceedings in its publication, *Board Briefs*, which has a distribution of over 20,000 copies. It has raised licensure fees to cover all of these activities, demonstrating its will-

ingness to "police its own" and pay for the cost at the same time. Individual Board members have taken leadership roles in the Federation of State Licensing Boards (the national organization through which all licensing boards contribute to the Physician Disciplinary Data Bank), by serving on the board of directors, FLEX Examination Committee, and Legal and Legislative Advisory Committee. The last has developed two publications, *A Guide to the Essentials of a Model Practice Act* and *A Guidebook for Medical Discipline.*

WHAT has been accomplished with all of this activity? The Board of Medicine encounters the following classification of diciplinary problems: felony convictions (Medicare fraud, criminal convictions), drug abuse, indiscriminate prescribing, alcohol abuse, unprofessional conduct, incompetence, mental/physical impairment, revocation by other states.

In the five-year period (1979-1984), the Virginia State Board of Medicine dealt with 43 felony convictions, 57 cases of drug abuse, 77 of indiscriminate prescribing, 34 of alcohol abuse, 27 dealing with unprofessional conduct, 10 with incompetence, and 20 with revocation by other states.

What type of action did the Board take in this five-year period? The following: revocation, 33; suspension, 35; probation, 78; reprimand, 29; cease and desist, 20; retirement, 15; denial of licensure, 23; restoration of licensure after probation rehabilitation, 37.

However, in the past three years the improvements in organization and administration of the board has resulted in a significant increase in the caseload. In fiscal year 1983-1984, the Board logged in 240 cases; in 1984-1985, 230 cases; and in 1985-1986, 323 cases.

During the same time period, the average length of working time, from complaint entered to closure or resolution of the case, decreased from 53 weeks to 25 weeks. With a new, computerized tracking system, installed on July 1, 1986, the Board will have immediate access to the status of each case. This is data that can be reported to the media or other interested parties to demonstrate that, indeed, the medical profession and, in particular, the Virginia State Board of Medicine are doing their part to insure medical competence and protect the public from incompetent and unscrupulous professionals.

The Virginia State Board of Medicine continues to be a leader in the medical disciplinary field. We look forward to new and innovative ideas and continuing cooperation with governmental officers, legislators, and agencies to demonstrate to the public that we are responsive to their needs and demands. ■

Peer Review's Data Capability Is Important Policing Tool

C. M. Kinloch Nelson, MD, *Richmond, Virginia*

THE president of the Massachusetts Institute of Technology was expounding recently on the great accomplishments of the Institute. There was a problem, he said, that they just couldn't seem to solve: No matter how high the college board scores, no matter the perfect academic records in high school, no matter how hard they tried, 50% of the students always ended up in the bottom half of the class.

Medicine is much the same. By definition, in the spectrum of care there are always physicians performing substandard care. The percentage is small, perhaps under 5%, but it has a significant impact on our society. The identification of these physicians is not always easy. Medicine changes constantly. It is like a toy "slinky" moving down the steps: The leading edge of the steel coil reaches down a step until the trailing edge finally flips over to reach a new plateau, never to return to the old.

This never-ending change makes it difficult to police our own profession. Methods that worked in the past, such as state licensure, accreditation of medical schools, training programs, and specialty boards, continue to work well, but still one has physicians functioning on the lower end of the scale.

Methods of assessing quality care for our patients and of policing ourselves must continue to advance. The Medical Society of Virginia Review Organization, spawned from the demise of the professional standards review organizations of recent history, has been given the huge task of guaranteeing both the cost effectiveness and the qual-

Dr. Nelson is a vice-councilor of The Medical Society of Virginia. Address correspondence to him at 5224 Monument Avenue, Richmond VA 23230.

ity of care. Through its widespread data collecting capability, the MSVRO has become the first agency to begin to define patterns of care. Patterns of practice become more significant as the quality of care increases and as gross incidents become further and further apart, so that the only method of identification of the problem physician is by statistical analysis of the variations from a normal standard.

Many members of the medical profession thought the MSVRO would function only as a tool of the federal government, to control costs and to limit the availability of health care; this expectation led many physicians to oppose The Medical Society of Virginia's involvement with the MSVRO. But this capability to determine clinical competency represents a new wave; the Joint Committee on the Accreditation of Hospitals recently recognized that patterns and outcomes of care are the next step in our self-policing, and we physicians would be remiss in our obligation to our profession and to society if we allowed this important tool to come under the control of insurance companies or non-professional contractors.

With the MSVRO's new-found capability has come a new-found responsibility. This responsibility is first to our communities but also to the individual physician. The sanctioning process available to the MSVRO is rarely used; but when it is used, to protect society, due process must be guaranteed to protect the physician, too. To do this, the MSVRO needs to interface directly with the State Board of Medicine and work closely with it. Only if all of our policing mechanisms work together under the legal authority and mandate of the State Board of Medicine can we truly fulfill our obligation to society and to the medical profession. ■

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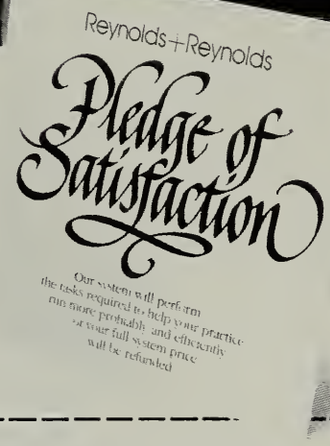

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Action at the 139th Meeting

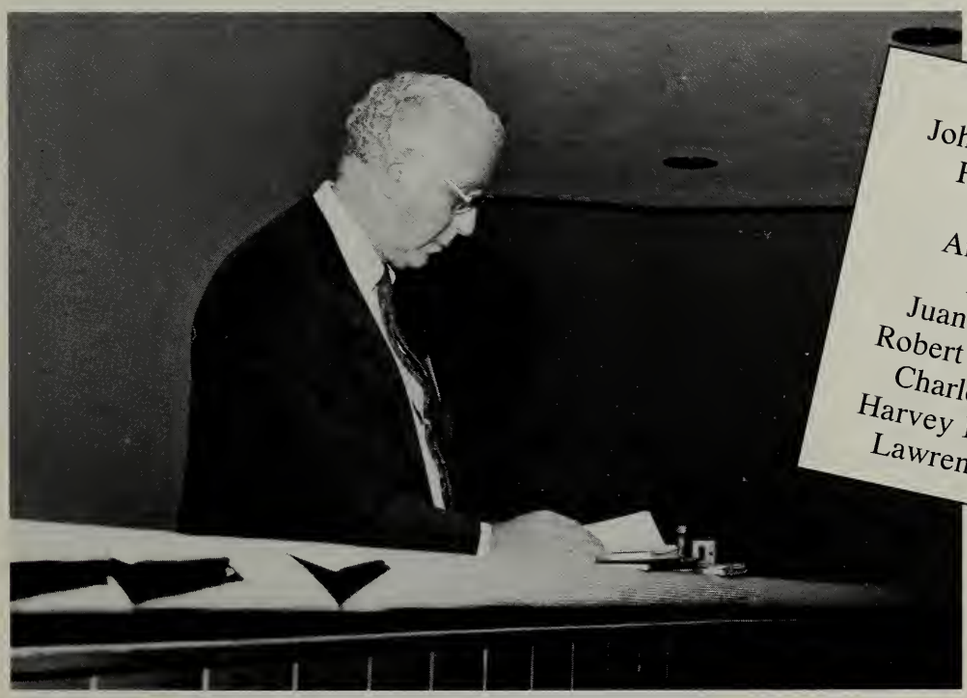
Reference Committee One
Ira D. Godwin, MD, *Fairfax*, Chairman
Sam Barton, MD, *Richmond*
Robert L. Cassidy, MD, *Norfolk*
Boyd M. Clements, MD, *Yorktown*
Charles W. Coppedge, MD, *Farmville*
Edwin J. Harvie, Jr., MD, *Danville*
C. Gordon Heckel, MD, *Reva*
Eugene R. Lareau, MD, *Harrisonburg*
Mark S. Mason, MD, *Manassas*

Standing room only as Reference Committee One hears peer review problems. In the doorway, from left: Dr. C. Dick Park, Portsmouth; Dr. Frances J. Dunston, Richmond; Dr. C. Barrie Cook, Fairfax; and Dr. Kenneth S. Kelleher, Jr., Woodstock. At the podium is Chairman Godwin.

Although tort reform, peer review and finances generated the liveliest debate when Medical Society of Virginia members met in Williamsburg last month, there were many other compelling matters for the House of Delegates to attend to. Here summarized are the substantive decisions made by the House at its second session on November 8. The session was conducted by Dr. William H. Barney, Speaker, and Dr. George E. Broman, Vice Speaker.

Before hearing the reference committee reports, the House accepted the slate of officers, councilors, and vice councilors presented by Dr. Joseph H. Early, Jr., chairman of the Nominating Committee, then elected the Society's AMA delegates and alternates for the coming year. A complete roster of the 1986-1987 leadership appears on page 43 of this issue and you will find a picture of the new officers on page 36.

In the Williamsburg Conference Center's auditorium, Dr. John C. Bucur, Arlington, studies a reference committee agenda.



AIDS at School

The House adopted a resolution from the Child Health Committee asking the Society to "urge state and local school boards to permit school children with AIDS to attend school freely unless they are not toilet trained." The wording of the resolution adhered to recommendations from the American Academy of Pediatrics.

Animal Research

From Dr. C. Barrie Cook came a resolution on animal research. As adopted by the House, it read: ". . .that The Medical Society of Virginia 1) take a more active role in working with lay groups and the General Assembly in educating those groups to the need for the use of animals in research; 2) find patients, their families and others who have benefited from animal research and encourage them to speak out at public forums on these issues; and 3) form an ad hoc committee to expedite the intent of this resolution."

Annual Meetings

The Long Range Planning Committee had taken up the subject of the Society's annual meetings and hadsubmitted three recommendations, all of which were adopted by the House: 1) that the annual meeting continue to be held in the fall; 2) that it be held in some location other than Williamsburg or the Homestead every third year; and 3) that the 1989 annual meeting be held in Richmond.

Adopting a recommendation of the Bylaws Committee, the House placed a moratorium on admitting delegates from subspecialty societies "until a study can be conducted relating to representation by specialty societies."

Boxing

Growing professional sentiment against boxing was reflected in a resolution from the Virginia Neurologic Society advocating a ban on boxing in Virginia. Asking The Medical Society of Virginia to seek legislation implementing such a ban, the resolution further request-

Reference Committee Two

John Boniface, Jr., MD, *Galax*, Chairman
Henry S. Campell, MD, *Martinsville*
Reuben D. Knopf, MD, *Roanoke*
Antonio M. Longo, MD, *Alexandria*
Barbara A. Mella, MD, *Fairfax*
Juan M. Montero, II, MD, *Chesapeake*
Robert T. Mosby, Jr., MD, *Virginia Beach*
Charles D. Price, III, MD, *Kilmarnock*
Harvey D. Smallwood, MD, *Charlottesville*
Lawrence C. Zacharias, MD, *Richmond*

ed that "educational information on the dangers of boxing be prepared for parents, students, and physical education instructors in Virginia and that the Society's Sports Medicine Committee be directed to urge all colleges and universities to eliminate boxing programs."

Cancer

Reference Committee One endorsed the following resolution from the Committee on Diagnostic Imaging in the Evaluation of Breast Cancer, and the House followed suit by adopting it: ". . .that The Medical Society of Virginia encourage third-party payers and government to develop financial mechanisms for screening mammography through endorsements, selective procedure contracting, and other means."

Committees

The Society's HMO Feasibility Study advised against initiating an MSV-sponsored HMO/IPA but recommended the appointment of an ad hoc committee to act as an information/support/guidance center for physicians involved in alternative delivery systems but also, the recommendation emphasized, to develop a public education program reaffirming the physician as the principal provider of health care. The committee's recommendations had been approved by Council, and the House adopted them readily.

Noting that The Medical Society of Virginia and the Old Dominion Medical Society have mutual goals and concerns, the Richmond Academy of Medicine asked the delegates to adopt a resolution authorizing appointment of an ad hoc committee "through which the two societies could address jointly the many issues affecting the medical profession." The House adopted the resolution.

Ethics

The Ethics Committee asked that the committee be expanded to five members and a student representative. The House referred the request to the Bylaws Committee. An additional recommendation that the committee be required to meet at least three times a year was not

Finances

In preparing the 1986-1987 budget, the Finance Committee, under the veteran chairmanship of Dr. Michael A. Puzak, had imposed harsh cuts to cope with diminished revenue attendant on a drop in membership; many line items were reduced, including major allotments that fund the Society's lobbying efforts. Then, on the annual meeting's opening day, came the electrifying news that U.S. District Judge James Harry Michael had ruled Virginia's cap on medical liability awards unconstitutional.

To Reference Committee Two went the task of reviewing the budget, and Chairman Wilson brought to the House the committee's recommendation: that the Society's dues be raised from $195 to $300 per member, to yield estimated additional revenue of $470,000, and that all of this additional income be allocated to liability reform efforts.

There was little opposition in the House to the $105 increase, but there was lengthy debate about how to assign the added revenue it would produce. After extended discussion the delegates voted to earmark $400,000 of it for tort reform and reserve the rest.

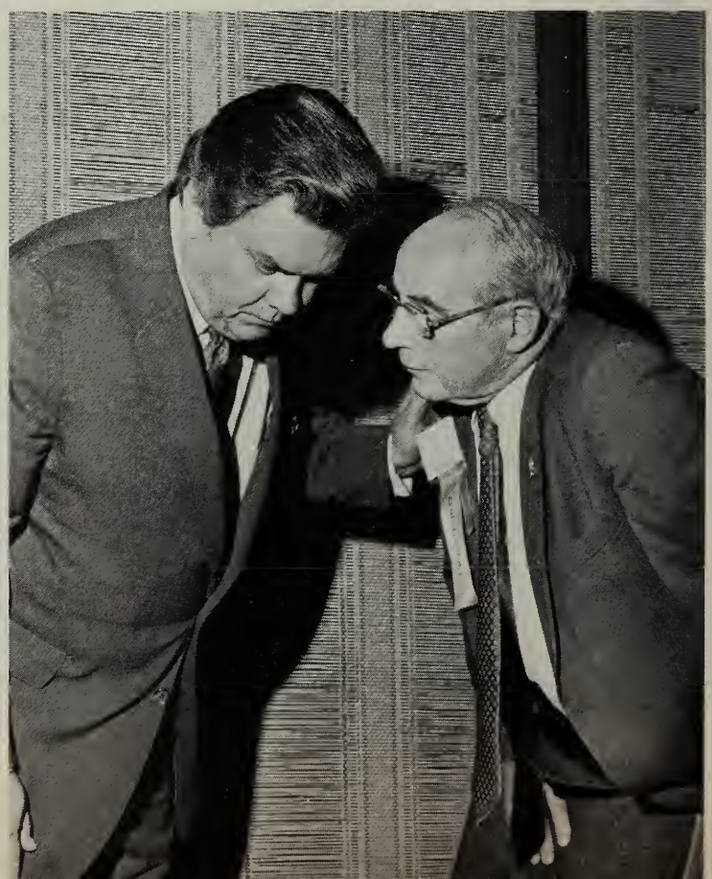
As amended to show the new revenue and its disposition, the following budget was adopted.

Salaries	$472,000
Membership—printing, mailing	2,500
Stationery, supplies	19,000

Reference Committee Three

Jeffrey W. Wilson, MD, *Lynchburg*, Chairman
Charles H. Crowder, Jr., MD, *South Hill*
Norman R. Edwards, MD, *Newport News*
Emerson D. Farley, MD, *Richmond*
J. William Giesen, MD, *Radford*
Emory F. Hodges, Jr., MD, *Alexandria*
Doug Martini (student), *Charlottesville*
Rolando J. Santos, MD, *Springfield*
Jack C. Turner, MD, *Danville*
C. Newton VanHorn, MD, *Norfolk*

Dr. C. Newton Van Horn, Norfolk, right, has a question for Jim Moore, who was reelected the Society's Executive Vice President.



Office equipment—	
repair, replace	4,000
Building maintenance, repairs	40,000
Telephone	18,000
Postage	20,000
Convention expense	40,000
Council, committee expenses	29,000
Travel expenses	
AMA delegates	29,000
Executive Vice President and staff	8,000
Expense/allowance	
President	29,000
President Elect	3,000
Virginia Medical	130,000
Editor	2,400
Legal expense	115,000
Legislative expense	10,000
Walter Reed Commission	1,000
Auxiliary	7,000
Dues (affiliated organizations)	1,100
Newsletter	4,000
Continuing medical education	6,500
Physicians' Health and Effectiveness Program	18,000
Miscellaneous	5,000
Computer operation, maintenance	8,000
Auditor	6,500
Employee benefits	
Retirement fund	112,000
Insurance	21,000
Payroll taxes	34,000
Consultants—legislative, PR	60,000
Insurance actuary	5,000
Special appropriations	
AMA-ERF	100
Scholarships	
MCV, UVa, EVMS	3,000
Rural health	500
Student medical societies	9,000
Hospital resident section	1,500
Other special appropriations	25,000
Liability tort reform	400,000
TOTAL EXPENSES	$1,699,100

In a resolution sponsored by the Arlington County Medical Society and referred by Council, the House was asked to reduce MSV dues for physicians in their first three years of practice to a level commensurate with the AMA's dues structure. The delegates referred the measure back to Council with the request that data be developed on how this policy, if adopted, would affect the income of the Society.

Dr. I. Kelman Cohen, Richmond, left, listens intently to Dr. Edward D. Martirosian, also of Richmond

Health Insurance

Adopted by the House was the Insurance Committee's recommendation that Blue Cross and Blue Shield of Virginia continue to provide a health insurance program for MSV members. With the recommendation came the carrier's proposal to merge the current MSV plan with the Blues' participating physicians' plan (PAR-Plan), yielding a larger subscriber base, lower age rating, optional $100 or $500 deductible, family plan with or without coverage for children, and changes to lower costs.

The health insurance of patients with CHAMPUS insurance was the subject of a resolution from Dr. H. C. Alexander III. He advocated support of the Alliance of State Physicians Networks, Inc., which is working to develop a health care delivery system to fit reform of the CHAMPUS program as proposed by the Department of Defense. The House adopted Dr. Alexander's resolution, thus authorizing The Medical Society of Virginia to "provide such reasonable financial support to the Network as it deems appropriate."

Highway Safety

The Society was asked to support legislation mandating seat belt use in the State of Virginia in resolutions from two committees, Emergency Medicine and Highway Safety. Both resolutions were adopted.

Proposed in another resolution from the Highway Safety Committee was legislative immunity for physicians who report to the Division of Motor Vehicles persons not qualified to drive. Counsel advised that the recommendation might expose physicians to greater liability, and the resolution was not adopted.

Also recommended by the Highway Safety Committee was 1) endorsement by the Society of the proposed amendments to the

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PRESIDENTIAL ADDRESS

Coping with Crises, Facing the Future

THIS has been quite a year. Jim Moore assures me that there has never been another one like it. If it weren't for the dedication of the staff, who have worked tirelessly, we would have encountered one disaster after another. We hope we have been able to turn some of the crises to the Society's advantage.

The liability availability crisis has led us to the Medical Protective Company of Ft. Wayne, Indiana, an old and well-established company. It is the third largest commercial company in the medical liability business, with an A-plus rating from Best. Your Executive Committee is pleased to recommend Medical Protective to you for consideration as your carrier. They have agreed to insure all classes of physicians and take up a large portion of the slack left by the restrictions of St. Paul and PHICO. They are going to offer occurrence policies as well as claims made, and this is a unique opportunity since such policies have not been offered in Virginia for more than ten years. Furthermore, Med-Pro intends to operate out of offices in our headquarters building on Dover Road; this will give us day-to-day contact and is certain to contribute to a close relationship.

The second of our three major crises has been membership. You may recall that last year at this meeting you voted for something called unification. It has proven to be a mixed blessing. Depending on how you count the numbers, we have lost about 630 members. On the other hand, we have almost 1,700 new members of the AMA. Despite the difficulties, there is no doubt in my mind that we did the right thing. The only possible debate is over how we accomplished it, and I feel it is too late to debate that now. I strongly recommend that we remain unified with the American Medical Association.

Two letters to the Editor in the [November] issue of VIRGINIA MEDICAL before you address my feelings. Tony Giordano notes that we must unite in our battles, that the mandates of regulatory agencies are far more onerous than uniting to fight common problems. Jack Turner sums it up when he says we must forgive each other and stop fighting. "Other more urgent matters are clamoring for attention. It's time to get on with business."

The third major crisis has been the reaction to the Medical Society of Virginia Review Organization. It is difficult to imagine how it could have stirred up such divisive feelings, but it has been the subject of the greatest number of complaints. Once again, there is no doubt in my mind that we are doing the right thing, but there is always room for improvement. Some changes have already been made, and you will consider other proposals to do more. Will Sipes' committee has made excellent recommendations. It is healthy that we continue to debate and improve the MSVRO, but we must continue the Society's involvement. The MSVRO should serve as a patient's advocate, and after all, that is the most important function of our Society—to be certain that the patients of the Commonwealth receive the best treatment possible. If we don't continue our involvement with the MSVRO, some insurance company like Blue Cross and Blue Shield will step in, and I assure you, if you are unhappy with the way things are being done now, you will like it even less if that is the situation.

Many of the unpleasant aspects of peer review are mandated by HCFA, and we should attempt to get Congress to alter some of the rules. The AMA Council on Legislation has drafted a bill to the effect that no publication of a sanction recommendation can be carried out until after the entire appeal process has run its course. This would be a major improvement and we should support it.

Some of our members have suggested that changing the name of the Medical Society of Virginia Review Organization would be helpful to indicate the relative independence of the PRO. I recommend that you consider at least a simple revision of the name, such as suggested by Bob Keeley. He feels

Presented before the House of Delegates at the annual meeting of The Medical Society of Virginia on November 6, 1986, in Williamsburg.

that changing the order of the name to the Review Organization of The Medical Society of Virginia might give the desired connotation.

Let's turn our attention to what needs to be done next. We have embarked on the most important legislative activity of our Society to date—the effort for tort reform. Our liability crisis is not caused by bad doctors—yes, there are some but they are very few. The MSVRO, in its sanction process, has discovered that 99.5% of Virginia physicians do an excellent job, and it is my feeling that Virginia physicians are among the best in the world.

The problem is not caused by insurance companies. Yes, they have played a role but not the most significant one. It has been caused by a legal system that has led to this litigious society in which we live. It must be changed, or all Americans will suffer. We have joined the largest coalition of its type in Virginia history, Virginians for Law Reform. It is composed of many, many Virginia businesses—large, medium and small, as well as a large number of associations and various interested parties. Every citizen of the Commonwealth is affected because of the cost of the legal problems in their everyday lives. You have already received a request for money to support this campaign. I urge all of you to give substantially so that we will have the capability to send our message loud and clear to the legislature. We intend to provide every physician with information for patients in his waiting room so that they will realize the severity of the problem and have the knowledge to convey their interest to their legislators.

Legislative activity will remain one of, if not the, most important activities of our Society. Representatives from HCFA have suggested that the government is moving towards capitation for all Medicare payments. If you believe, as I do, that capitation without any choice is wrong, then we must gear up to fight that battle in Congress. There will be other issues just as important, and we must be ready.

One final thought. We must continue our strong commitment to eliminating physicians who do not serve the public well. We hope that the changes we recommended for the Board of Medicine last year are working, and we are proud that the MSVRO is aiding in this effort. There is another side to this problem which cannot be ignored. A few physicians have chosen to try to make excessive amounts of money from patient care. These very few should not be tolerated, and I recommend that our Ethics Committee be asked to look into potential solutions to this situation.

It is impossible to express my thanks to all who have helped so much this year. Jim Moore, of course, is invaluable, and many members have devoted countless hours. Ron Davis, the chairman of our Liability Committee, has spent more time on your behalf than any other member for the last couple of years. We are deeply indebted to Ira Godwin for agreeing to take over the Insurance Committee at a difficult time. Mike Puzak has served the Society for many years in more ways than he may care to remember. He has served as chairman of our Finance Committee and of our AMA delegation and orchestrated Bill Hotchkiss' fantastic election this year. The Executive Committee has met on eight occasions, which is more than any time in recent memory, and their assistance has been essential for me.

I cannot close without thanking Betty and our children for their patience with the many evenings away and the long hours spent on Society business. My Dad has, as always for the last 49 years, been my most valued source of advice.

Finally, I would like to thank particularly the Richmond delegation and all of you for the opportunity to serve you and one of the greatest honors of my life. I only hope I have not let you down.

Charles M. Caravati, Jr., MD,
President 1985-1986,
The Medical Society of Virginia

Medical Society of Virginia Officers 1986-1987

These MSV officers for 1986-1987 were installed at the annual meeting: front row from left, Dr. Richard L. Fields, Alexandria, President; Dr. Glenn B. Updike, Jr., Danville, President Elect; Dr. J. Thomas Hulvey, Abingdon, First Vice President; and Dr. John A. Owen, Jr., Charlottesville, Second Vice President. At rear from left, Dr. Donald S. Thorn, Annandale, Third Vice President; Dr. William H. Barney, Lynchburg, Speaker of the House, and Dr. George E. Broman, Culpeper, Vice Speaker.

pedestrian bill to be introduced in the 1987 General Assembly and 2) state legislation incorporating recommendations in House Document 7, titled "Combatting the Drug Impaired Driver." The latter would amend the implied consent law to permit chemical testing of a person's blood to determine the presence of drugs other than alcohol, provide improved training in the detection of drug impairment for state police officers, and other related mechanisms.

HMOs

See the **Committees** subhead.

Impaired Physicians

Two recommendations from the Physicians' Health and Effectiveness Committee were adopted by the House of Delegates. The first authorized The Medical Society of Virginia to provide management services in the field of impairment to groups regulated by the State Board of Medicine. The second designated the Society's Executive Committee to serve as a review committee "when complaints are received relevant to the performance of the committee in individual cases." The committee's request for a budget of $22,000 was not adopted on the advice of a majority vote of the Finance Committee; instead the committee's allocation was increased to $18,000.

Liability Insurance

The delegates brought a new liability insurance carrier to Virginia when they adopted President Caravati's recommendation that the Medical Protective Company of Ft. Wayne, Indiana, be named the recommended liability carrier of The Medical Society of Virginia. Med-Pro is an old and well-established company, with an A+ rating from Best's Insurance Management Report, Dr. Caravati told the delegates. Its officers have agreed to insure all classes of physicians, he continued, and say they will offer not only claims made but occurrence policies, which have not been offered in Virginia for more than ten years. It sounded good to the delegates, who adopted Dr. Caravati's recommendation forthwith. Med-Pro general agent T. J. Pandak is now settled into an office at MSV headquarters in Richmond, where he has two telephone lines: (804) 358-0909 and (804) 358-1069.

Dr. James P. Baker, Norfolk, left, and Dr. Emerson D. Farley, Richmond

On the recommendation of Reference Committee Two, a resolution from the Norfolk Academy of Medicine asking the Society to endorse a doctor-owned insurance company to write liability insurance in Virginia was referred for study to the Professional Liability

A new type of liability coverage called "channelling" has been proposed by some carriers; it would insure doctors and hospitals jointly, instead of through separate poli-

Dr. Michael A. Puzak, left, and Dr. James P. Rotchford, both of Arlington

Dr. James E. Nevin, Danville, left, and Dr. George R. Smith, Shawsville, ready for the golf tourney.

cies. A resolution from the Richmond Academy of Medicine asked to Society to "express its strong opposition to the introduction of the channelling mechanism at this time." The delegates adopted it.

They also adopted the Richmond Academy's resolution urging the General Assembly to set a reasonable limit on liability faced by physicians beyond coverage of the Joint Underwriting Association, which began operating on November 1.

The Society's Bylaws were amended by action of the House to include indemnification of councilors, officers, committee members, and employees of The Medical Society of Virginia. Counsel's document spelling out the protection was designated Article VIIIA of the Bylaws.

Medicaid

Members of the Danville-Pittsylvania Academy of Medicine asked the Society to obtain an adjustment of Medicaid reimbursement rates "to levels that provide reasonable compensation for overhead costs and professional time." The House adopted the resolution.

Medicare

Mandatory assignment by Medicare of fees for laboratory tests in physicians' offices was the subject of a resolution submitted by the Virginia Society of Internal Medicine. It read, "RESOLVED, that The Medical Society of Virginia seek the support of the American Medical Association, American Academy of Family Physicians, American Group Practice Association, Medical Group Management Association, American Society of Internal Medicine, and other parties to exert maximal influence on Congress and other appropriate parties to delay and ultimately halt institution of mandatory assignment for laboratory testing in the physician's office on his or her own patients." Reference Committee Two had voted in favor of adopting the resolution, and so did the House.

The Southside Virginia Medical Society introduced a resolution asking The Medical Society of Virginia to persuade the Health Care Financing Administration to establish a new Medicare diagnostic related group for medical observation to improve quality of care. Specifically, said the resolution, the new DRG would apply to beneficiaries "1) who live alone or in adult homes or rest homes where no nursing or medical care is available; 2) who need skilled nursing care; 3) who need post-procedure observation and care." The resolution also specified that the new DRG allow a 48-hour admission (one extra day for a weekend admission). The House adopted the resolution.

Membership

Reference Committee Three recommended that Dr. Charles M. Caravati, Jr., President 1985-1986, be elected an honorary active member of The Medical Society of Virginia. The delegates conferred the honor unanimously, then stood

A hallway conference engrosses, from left, Dr. Aubrey C. Hall, Clifton Forge; Dr. Eloise F.C. Haun, Woodstock; Dr. George N. Chucker, Clifton Forge; and Dr. John W. Knarr, Pulaski.

to applaud the President.

Adopted by the delegates was the recommendation of Dr. Caravati that the Society remain unified with the American Medical Association. Dr. Caravati's presidential

The House did not adopt a resolution asking that unified membership be rescinded for a two-year probationary period, then subjected to a vote of the membership.

From the Membership Committee came two recommendations that won the quick assent of the House: 1) that The Medical Society of Virginia continue its efforts to retain membership and 2) that the Society plan an extensive recruitment of new members for 1987. In his speech to the House after his election, incoming President Richard L. Fields singled out membership as his "No. 1 concern" for the coming year and said that he intends "to drive as many miles as I have to to carry the message of MSV membership to as many societies as will have me."

Dr. Milton Salasky, Norfolk, right, receives his 50-Year Club certificate from President Caravati.

Peer Review

"Generally," Reference Committee One said in preface to recommendations relating to the Medical Society of Virginia Review Organization, "your committee believes that The Medical Society of Virginia should continue its association with the MSVRO, but there are many desirable improvements that should be made in its operations. Some can be made by the MSVRO. Others require legislative or regulatory changes by the federal government. The following recommendations contemplate both types of changes."

The first recommendation came from the presidential address of Dr. Caravati, who recommended that the Society continue its involvement with the MSVRO. Reference Committee One endorsed that supportive position, and it was adopted by the House without demurral. A similarly supportive resolution from the Richmond Academy of Medicine was also adopted.

President Caravati had also recommended that the Society consider changing the name of the review organization. The reference committee recommended that the name be changed to the "Review Organization of The Medical Society of Virginia," but the recommendation was rejected.

A third recommendation from President Caravati was adopted; it read "that the Society support a bill drafted by the AMA Council on Legislation to the effect that no publication of a sanction recommendation can be carried out until after the entire appeal process has run its course."

Then the delegates heard the committee's recommendation to adopt a series of recommendations from the MSVRO Study Committee. This comprehensive document precipitated a lot of discussion and some changes, until finally it was adopted. Also adopted was a resolution from the Richmond Academy of Medicine asking for changes in the MSVRO's operations. The complete text of both instruments as adopted appears on the next two pages.

Pharmacy

Adopted by the delegates without debate was this resolution referred by Council from the Pharma-

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Text of Peer Review Recommendations

Following is the complete text of the MSVRO Study Committee's recommendations as adopted by the House of Delegates at the annual meeting on November 8 in Williamsburg. The committee was comprised of Dr. William H. Sipe, Newport News, chairman; Dr. Theodore Adler, Virginia Beach; Dr. Wyatt S. Beazley III, Richmond; Dr. William J. Hagood, Jr., Clover; Dr. George A. Hurt, Lynchburg; Dr. Ray H. Smith, Lynchburg; and Dr. Delosa A. Young, Springfield.

The primary responsibility of the Medical Society of Virginia Review Organization is the review of health care services subject to Medicare reimbursement in compliance with the Social Security Act. The latter states that the medical services are to be rendered economically, are to be of medical necessity and a recognized standard of quality care, and supported by appropriate evidence of medical quality and necessity. Much adverse publicity and criticism have been directed toward the MSVRO as well as the Medical Society of Virginia itself. The committee studied the problems with the intent of suggesting improvements in the administrative functions and to define the responsibilities of the MSVRO.

Administrative Functions

Sanctioning Process

The sanctioning process is of paramount concern and many improvements, including the following, should be made.

1. Careful screening and education of non-physician analyst.
2. Physician advisor should be of specialty in question.
3. Physician specialty should be represented at all times in the Regional Review Committee.
4. Request each specialty to supply the MSVRO with a list of qualified specialists, not necessarily members of The Medical Society of Virginia, willing to serve in the above capacities.
5. Indemnification for all panel members at all levels of the sanctioning process.
6. Detailed report to practicing physician regarding the basis for sanctioning, with the notification commencing at the first level of the decision.
7. The ad hoc physician of specialty serving at the request of the Quality Assurance Committee should be of a similar type of practice.

Admission Denials

This has produced problems and angered many physicians, with much of the anger directed at the Society. A change in the administration of the MSVRO dealing with pre-admission certification is needed. Admission denials by the pre-admission, non-physician "screener" and the physician advisor should have concurrence with the specialty in question prior to the issuance of denial. Recourse for admission denial should be handled by a second physician of the specialty in question.

Recently the AMA Council on Legislation recommended that a bill be introduced in Congress to amend Part B of Title XI of the Social Security Act concerning the authority of utilization and quality control review organizations to conduct pre-admission review. If passed, this will be somewhat helpful, although not solving all of the problems.

Denial Letters

The problem of denial letters, especially the wording thereof, to the beneficiary and practitioner concerning readmission of prematurely discharged patients is under consideration by the Health Care Finance Administration at this time. HCFA officials agree the wording is not ideal and are seeking to improve it.

Communications

There are many instances of poor and inadequate communication from the MSVRO. Therefore, it is deemed important to improve communication from the MSVRO to the practicing physician, keeping him promptly informed of new developments and changes. Disseminating to local medical societies information that can be presented to the entire

membership will help keep physicians abreast of activities and possibly improve the image of The Medical Society of Virginia.

Executive Administration

It appears that serious communication problems exist between the MSVRO administration and physicians, which cause misunderstanding and hamper effective function. The MSVRO Board is expected to address these problems.

Confidentiality

All actions of the MSVRO should remain strictly confidential.

Responsibilities

1. The mission of the MSVRO must be to satisfy HCFA regulations, but the mission must also be to satisfy The Medical Society of Virginia as well as practicing physicians in Virginia. In order to accomplish this, increased involvement by physicians throughout the Commonwealth is essential. Coordinated involvement of specialties by policing their own specialists through approved lists of voluntary participants is necessary. The Board of Directors of the MSVRO should take the initiative in implementing this plan.
2. A very positive public relations campaign is recommended in order to promote an improved image. Referral to the Society's Public Relations Committee for further study is suggested.
3. Distributed information and actions pertaining to the MSVRO should be explict in origin and detail in order to abate any confusion with the activities and responsibilities of the Society.
4. The MSVRO Board of Directors should be more actively involved in the mandated process of the review organization. In addition, the Board needs to be promptly informed and kept abreast of ongoing proceedings, as well as having frequent meetings in order to perform its designated duties.
5. Reasoning, compassion, and understanding in making policy decisions is urged. A quota system for denials and sanctions, whether written or as an unofficial, tacit understanding by reviewers, is condemned.
6. It is difficult at times to separate the administrative functions from the responsibilities, but full cooperation between the Board and the executive administration is essential in order for the MSVRO to be effective for all concerned. The Board is empowered to carry out the objectives for the benefit of the practicing physician and The Medical Society of Virginia, and it should so act.
7. Currently it is deemed advisable to continue with the official name as the Medical Society of Virginia Review Organization.

Also adopted by the House was the following resolution on the review organization from the Richmond Academy of Medicine.

RESOLVED, that The Medical Society of Virginia go on record as supporting the following recommendations and forward these recommendations to the Board of the Medical Society of Virginia Review Organization:

1. The initial physician review should be conducted by an experienced peer practicing in the same specialty as the physician under review.
2. Notification should be provided to the physician under investigation as soon as any case has been selected for review by the Regional Review Committee, and the physician should be advised of any committee action.
3. Ad hoc advisory panels should be established to assist members of the Quality Assurance Committee. Such ad hoc panels should be selected from a list provided by the state's respective specialty societies and should include experienced physicians in the same specialty and with the same type of clinical practice.
4. The Quality Assurance Committee should permit reasonable expert testimony on behalf of any physician who is being considered for possible sanction.
5. Assessment of each individual case should be measured by the "ordinary standard of care" in Virginia, and the defendant physician's overall pattern of care should be a critical determinant.
6. There should be a guarantee of adequate due process at the Quality Assurance Committee hearing before, rather than after, the sanction recommendation.
7. Any physician for whom sanction is recommended should be fully advised in writing of the basis for this recommendation; and be it further

RESOLVED, that The Medical Society of Virginia urge appropriate federal revision of the entire review process and adoption of a more reasonable review process that physicians can support.

In the exhibit hall, Dr. Arthur J. Martin, Bowling Green, right, talks with Mel Willis at the Blue Cross and Blue Shield of Virginia booth.

cy Committee: RESOLVED, that The Medical Society of Virginia oppose legislative attempts at any level of government that would permit pharmacists, when presented with a prescription for a drug product, to 1) dispense instead a drug product that is administered by the same route and contains the same pharmaceutical moiety and strength but differs in the salt or dosage form (pharmaceutical alternatives), and 2) dispense a drug product containing a different pharamaceutical moiety but which is of the same therapeutic and/or pharmacological class.

The House adopted a resolution from the Ethics Committee that The Medical Society of Virginia "condemn solicitations offering narcotic/analgesic chemical substances through the U.S. Postal Service without adequate safeguards and publicly declare its view that such solicitation is unethical and should be illegal." Copies of the resolution were to be conveyed to the Virginia State Boards of Medicine and of Pharmacy.

Physician Fees

Praising the Society's commitment to disciplining physicians who do not serve the public well, President Caravati noted "another side to this problem, and that is that a very few physicians have chosen to try to make excessive amounts of money from patient care. This conduct should not be tolerated, and I recommend that our Ethics Committee look into potential solutions." The House adoped his recommendations.

There was more on pricing practices in a resolution from the Newport News Medical Society. It asked the The Medical Society of Virginia to work to obtain an exemption from antitrust and restraint-of-trade regulations so that local medical societies could deal with complaints about the pricing practices of physicians. The House gave its assent.

Physician Surplus

Citing "a documented present and future surplus of physicians in the United States, including Virginia," the Virginia Beach Medical Society's request of the House called for "each medical school in Virginia [to] prepare and publish plans to decrease the number of medical school admissions, commensurate with the projected need for physicians." Reference Committee Three decided that the resolution "did not represent an appropriate means to deal with these concerns," and voted against adoption. So did the House.

Pre-Hospital Emergencies

A resolution from the Emergency Medicine Committee requesting "that The Medical Society of Virginia work with appropriate specialty societies and the State Division of Emergency Medical Services to standardize the system of on-line medical direction for prehospital emergency care" was adopted by the House.

SIDS/Autopsies

Stressing the importance of research to identify other medical causes for infant death that might be confused with sudden infant death syndrome, the Fairfax County Medical Society and the Alexandria Medical Society joined in a resolution asking The Medical Society of Virginia to "endorse the position of the Virginia Academy of Pediatrics and urge all attending physcians to seek autopsies on all suspected cases of SIDS." The House adopted the resolution.

Tobacco

Following the lead of the AMA, whose delegates endorsed a ban on smoking during its meetings, The Medical Society of Virginia's Council asked for ratification of a ban on the smoking of cigarettes, cigars, and pipes at Council meetings and all meetings of the House. The delegates voted to so ratify.

The Child Health Committee introduced a resolution on tobacco use in Virginia's schools. It asked that The Medical Society of Virginia "urge state and local school boards to prohibit smoking and other forms of tobacco use by all students on school property, and further urge all professional school personnel to refrain voluntarily from all forms of tobacco use on school property." The House voted to adopt. —ANN GRAY

Medical Society of Virginia Officers and Councilors

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THE AUXILIARY

From New Initiatives, New Successes

THE purpose of the Auxiliary is to assist you, The Medical Society of Virginia, with your endeavors. We are your additional arm of manpower and your good will ambassadors.

The Auxiliary realized its potential as we forged through the challenges of this year. We successfully responded to the changes in the practice of medicine, the medical family, and the Auxiliary in an effort to make our world a better one in which to live.

When I took office last November, I recalled what Alvin Toffler said in his book, *The Adaptive Corporation*. "The first rule of survival is clear", he wrote, "Nothing is more dangerous than yesterday's success." The Auxiliary had been successful beyond our highest expectations and we were proud of our accomplishments, but we realized that we could not rest on yesterday's success. With the adversities facing the practice of medicine, it became apparent that our spouses' profession and our Society needed our help more than ever before.

These crises affecting our spouses' profession caused our members to unite and embark on new initiatives to improve not only the quality of life in the Virginia communities but to enhance medicine's image.

Our component auxiliaries engaged in many community health activities, health education programs, and fund-raising activities.

Over $147,000.00 was raised and distributed to health scholarships, medical education and research, and many other worthy philanthropic endeavors.

The Auxiliary received extensive media coverage of its programs. Our international health program to aid the volcano victims in Columbia received over 42 free public service announcements amounting to over $9,000.00 worth of media coverage. Our public relations chairman prepared five press releases which were distributed to area newspapers throughout the Commonwealth.

Additionally, we understood that medicine was faced with a battle of public opinion on such topics as health care cost and professional liability, and we were confronted with the reality that many physicians do not have the time to become involved in activities that protect their profession. These realities served as a call for action.

Many of our auxilians responded quickly and enthusiastically to this call by organizing a statewide speakers bureau comprised of Auxiliary and Society members to communicate medicine's views effectively. To date this effort has reached almost 75,000 persons through public speaking events and media coverage. Our goal for next year is to double this figure. In order to do this, we need your help. We need your participation and involvement. Our speakers are receiving fantastic reviews from audiences around the state. Each public contact is leading to additional requests for speakers. Our speakers are becoming more self-confident and are valuing this experience as an opportunity to grow as individuals.

Under the able leadership of our President Elect, Madeline Sly, planning is now underway for another public relations program, Pets for People. I hope that you will give her your support as you have our speakers bureau.

We have been extremely fortunate to have increased our national membership again this year in a time when many organizations are experiencing declines. We won a national membership award for organizing a new component, the Fauquier County Medical Auxiliary, and a national membership challenge from North Carolina. As a result, a North Carolina dogwood tree will be planted at Society headquarters.

As pressures on physicians increase, so do pressures on the spouse and the family. In an effort to provide Auxiliary and Society members with a

Presented before the House of Delegates at the annual meeting of The Medical Society of Virginia on November 6, 1986, in Williamsburg.

better understanding of the liability problem, the Auxiliary with the assistance of the Society has initiated the publication of the Virginia Handbook on Medical Professional Liability. We are most grateful to St. Paul Fire and Marine Insurance Company and the Virginia Insurance Reciprocal for underwriting the cost. We hope to have this handbook ready for distribution by March.

Our members continued to be your ambassadors by attending the liability hearings when many of you could not afford to leave your practices, and we increased our communication with legislators through letters, telephone calls and personal contacts.

A phone bank was organized by the Richmond Auxiliary. A legislative alert system was initiated and assisted in blocking the optometrists' bill.

I wish to convey my sincere appreciation to Dr. Caravati, Jim Moore, and the entire Society for your continued interest and support. I am grateful to you for sharing with us the services of your staff, especially our own Donna Strawderman. Without their support, many of our programs would not be possible. I want to thank you for involving us in your activities and committee meetings.

As you can see, we are not an involved auxiliary but we are a committed auxiliary. I compare involvement and commitment with a bacon and egg breakfast: the chicken was involved, but the pig was committed. We are committed to our spouses, their profession, and The Medical Society of Virginia.

Barbara Vick,
President, 1985-1986,
Medical Society of Virginia Auxiliary

Newly elected Auxiliary officers at their annual meeting: In front, Mrs. Donald E. Sly, Norfolk, President (left), and Mrs. Marvin N. Lougheed, Roanoke, President Elect.

Second row, from left, Mrs. Norman R. Edwards, Newport News, Mrs. Carroll T. Petty, Richmond, Mrs. Ira D. Godwin, Fairfax, Mrs. Victor N. Guerrero, Manassas, and Mrs. Lawrence Fehrenbaker, Danville, vice presidents.

At rear, from left, Mrs. Harry S. Holcomb III, Nassawadox, treasurer; Mrs. William W. Gough, Norfolk, corresponding secretary; and Mrs. Sidney W. Tiesenga, Portsmouth, recording secretary.

Tort Reform: "Together we can do it"

Rep. Thomas J. Bliley, Jr. (R-Richmond), had just been elected to his fourth congressional term when he spoke at a seminar on tort reform on November 8 in Williamsburg during The Medical Society of Virginia's annual meeting. The following is excerpted from the speech he made before an attentive crowd of Medical Society of Virginia members.

THERE are two fundamental points you must understand in order to grasp the problem [of tort reform in Congress]. Point One is that Congress does not have a lot of knowledge and experience in the insurance field, despite what demagogues sometimes say, and is wary of dealing with a subject for which it has no personal or staff expertise.

Point Two is that any comprehensive solution—insurance practices and tort reform—would have to pass through at least two committees in each house of Congress. In the House you have the Energy and Commerce Committee, on which I serve, that handles insurance, but you have the Judiciary Committee that handles tort matters. The same is true in the Senate.

The difficulty is that neither committee will allow the other to legislate in its jurisdiction. If Energy and Commerce tried to write tort reform into an insurance bill, you can bet your bottom dollar that Judiciary would radically change that bill if only to show how important they are. This ticklish situation becomes worse when you know that Congressman Peter Rodino, chairman of the House Judiciary Committee, has said that tort reform would pass only over his dead body.

The best chance you have to help your liability problem is to work on the General Assembly to change the state laws dealing with insurance practices and tort laws. Not only are these matters traditionally state issues anyway, you have a better chance at the state level than at the federal level.

I was pleased to be a cosponsor in the House of the bill introduced by the AMA that seems to go in the right direction, S1804/HR3865. Basically, it provides financial incentives to each of the states to review and then improve their own laws. I am a member of the Congressional Task Force on the Liability Crisis, and, as I have said, of the Energy and Commerce Committee, which will have to deal with part of this problem. I promise you that I will do all I can to promote a just and reasonable solution to this crisis. But I cannot do it alone. I will need the help of everyone of you in this room and all of your friends who are not here today or who live in other states. Together we can do it. Separately I am afraid there will only continue to be a problem with no solution.

John D. Munford, executive vice president of the Union Camp Corporation, Franklin, Virginia, and chairman of Virginians for Law Reform, was the other speaker at the seminar on tort reform at the annual meeting. The following is excerpted from his speech.

Virginians for Law Reform began in June 1986 and now includes businesses employing more than 175,000 people in Virginia. Directly and through 51 trade and professional organizations, including The Medical Society of Virginia, it allies 3,000 large and small businesses, 7,500 merchants, 90 professional engineering firms, over 5,000 doctors, about 25,000 realtors, 38,000 farm families, 25 hospitals, over 2,300 dentists, 4,000 certified public accountants, 800 psychologists, 175 banks, and 65 savings and loan institutions, all in Virginia.

Virginians for Law Reform does not in any way oppose the well-established concept of making a plaintiff whole. We are very much opposed to the kinds of legal manipulations that convert the system into a lottery to obtain unpredictable and indefensible financial rewards.

Write or speak to your state senators and delegates and let them know you support comprehensive tort reform. Join in the efforts of Virginians for Law Reform with financial support and a little of your time. This remarkably broad-based coalition can, through concerted action, improve the likelihood that necessary and traditional coverages will once again become available on an affordable basis.

VIRGINIA MEDICAL
EDITORIAL

Political Primer

THE recent judicial decision disallowing the cap on medical liability awards was to medicine what the 2 x 4 between the eyes was to the mule. It got our attention! And well it should have. But so long as medical professional liability was just a "doctors' problem," there was little hope of change.

When our tort system consumes over 50% of an award before any money reaches an injured party, be it from automobile accident or medical misadventure, and when services and products are therefore priced out of reach or are unavailable, consumers are vitally affected. The coalition of industry, of trade associations and professional organizations, of hospitals and physicians—Virginians for Law Reform—reflects this wider appreciation of the seriousness of the problem and gives hope for tort law reform. There is "blame aplenty" to spread over insurance companies, lawyers, judges, juries, hospitals, and even doctors. The answer lies not in fixing blame but in finding a fix to the problem. And the solution will have to be found in the political arena.

If medicine is to have political clout several things are necessary:

1. Continuity of people who are active. A constant nucleus of dedicated workers is essential.

2. Activity at the local level and not just in Richmond. A day or two in Richmond when the General Assembly is in session is better than total inactivity, but only a little better. During the session chaos is routine and abnormalcy normal. You cannot get a legislator's attention amidst fourscore distractions.

3. Activity on general issues and not just activity on medical issues. Single-issue interest and activity is perceived to be solely self-interest. Its purveyors may be given little credence and time.

4. Understanding the process and how to work within it. This is the key, the hardest to learn and the easiest to forget.

5. Not permanently aligning the group—Medical Society or Ophthalmological Society or VaMPAC or AMPAC—with either party. The group must be truly bipartisan, with friends on all sides of the political fences. However, individuals must be active in local parties and be recognized as Dr. X the Republican and Dr. Y the Democrat.

6. If you can't make a friend, don't make an enemy, because he/she just might be a potential ally on the next issue. This basic principle is self-evident but commonly violated in ignorance, in anger, or "on principle." (Only in the name of religion have more errors been committed than those committed in the name of principle.) This is not to condone lack of principles but a caution to keep it in perspective.

7. Learn to like and enjoy it. Politics for the amateur is a stimulating challenge. It is the engine of our society and system. Without educated, concerned, honest, dedicated citizens' involvement, the political system will be steered—but not by you or me.

HENRY S. CAMPELL, MD

VIRGINIA MEDICAL OBITUARY

Murray C. Miller, MD

Dr. Murray Culbertson Miller, Virginia Beach psychiatrist, died unexpectedly of a heart attack on October 23, 1986, as he was meeting with his practice group, Psychiatric Associates of Tidewater, in Virginia Beach. He was 54 years old.

Dr. Miller was graduated in 1958 from Temple University School of Medicine, Philadelphia, and trained at Temple and Stanford University hospitals. He served in the United States Air Force from 1959-1962, then was a member of the faculty of the Medical College of Pennsylvania in Philadelphia ujntil 1974, when he moved to Virginia Beach to practice. He came to membership in The Medical Society of Virginia through the Virginia Beach Medical Society and belonged also to the American Medical Association.

Memoir of H. W. Harvey 1918-1986

By Harold B. Owens, MD

Herbert Whitley Harvey, MD, died July 21, 1986, in Richmond. He had practiced family medicine in Danville, Virginia, for 38 years.

Dr. Harvey was born in Quitman, Virginia, on November 7, 1918. He graduated from Virginia State University and received his MD degree from Meharry Medical College in 1943.

Dr. Harvey served in both World War II and the Korean War and attained the rank of captain in the US Army Medical Corps. He completed his internship and surgical residency at Lincoln Hospital in Durham, North Carolina, before moving to Danville in 1948. He had an active family medicine practice until his retirement.

Dr. Harvey was a member of the American Medical Association, The Medical Society of Virginia, and the Danville-Pittsylvania Academy of Medicine. He was on the staff of the Memorial Hospital in Danville.

His interest in life extended beyond medicine. For most of his life he was an avid hunter and fisherman. In his later years, he became a collector of guns, stamps, and semi-precious stones. He painted, crafted leather, and built replicas of antique guns.

He is survived by a son, William Earl Harvey, Sacramento, California; a daughter, Carolyn Harvey, Washington DC; and a brother, Thomas W. Harvey, Atlanta. He was married to the late Helen Tate Harvey.

Dr. Harvey will be missed by his fellow physicians and patients who knew him as a good, caring and well-qualified physician.

H. M. Richardson, MD

Dr. Herman M. Richardson, general practitioner in Midlothian for 54 years before his retirement in 1985, died December 12, 1986. He was 80 years old.

A native of Richmond, Dr. Richardson was graduated from the University of Richmond and the Medical College of Virginia, then served his internship at Stuart Circle Hospital in Richmond.

At the time of his retirement the Chesterfield County Board of Supervisors commended him for his medical services in the county and the Virginia State Police made him an honorary captain in recognition of his 42 years as a medical examiner.

Dr. Richardson was a member of the Richmond Academy of Medicine, The Medical Society of Virginia, the American Academy of Family Physicians, and the American Geriatrics Society.

VIRGINIA MEDICAL

The Monthly Publication of The Medical Society of Virginia

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LETTERS

HMO gatekeeper's plight leaves him dry-eyed

The article by John D. Grad entitled "Coping with the Gatekeeper "in VIRGINIA MEDICAL's November issue raises some interesting ethical dilemmas for physicians which perhaps need some additional comment.

The first admonition proposed by the author is that "the secondary provider must establish good relations with the gatekeepers. The traditional personal marketing strategy based upon social and business contacts is as important as ever." A cynical person might interpret this to mean that a Christmas ham, a gift box from Harry and David once a month, or perhaps even a little fee-splitting might help keep the specialist's name "at the top of the list." The question to be asked is why should one physician be placed in the position of currying favor or toadying to another physician? Are we about to see a return to fee-splitting or more subtle forms of coercion so that the specialist selected is not necessarily the best for the patient but only the most compliant?

The author also suggested that the gatekeeper deserves our profound sympathy because he or she must face constant anxiety because "there is the spector of liability over doing procedures previously referred out, or over withholding or minimizing medical intervention and over all of the tendencies that are created by the financial system not to render care." I find it difficult to generate much sympathy for an individual who would voluntarily choose to accept this role and who would ever hesitate for one moment in making a decision whether to refer or underutilize appropriate services if these were in the best interests of the patient, no matter how many financial incentives are offered to behave otherwise. If "being a gatekeeper is not much fun" there is one sure way to end the misery, best summarized by Harry Truman, who said, "If you can't stand the heat, get out of the kitchen."

There is, however, another way out of this ethical dilemma for the gatekeeper. In the recently passed Budget Reconciliation Act of 1986, the Congress declared that it is illegal for hospitals or other eligible organizations providing care for Medicare patients to provide payments, directly or indirectly, to a physician as an inducement to reduce or limit services provided for Medicare patients and any physician who accepts such payment is subject to civil penalties. While this prohibition does not yet apply to health maintenance organizations and competitive medical plans, their incentive arrangements are under review, and hopefully, in time these too will be forced to abandon these pernicious arrangements, which clearly threaten to compromise the quality of care.

Perhaps the gatekeeper may be deserving of our sympathy after all, but only time will tell.

Peyton E. Weary, MD
Department of Dermatology
University of Virginia Medical Center
Charlottesville VA 22908

1. Grad JD: Coping with the gatekeeper. Va Med 1986; 113:657-658

Letter startles and dismays this dues exempt member

Being in the dues exempt category of membership, I recently received a startling letter from the MSV office which tacitly suggested that we resume payment of dues. There were two enclosures, one a copy of a splendid letter from Dr. C. C. Hatfield of Saltville to the Executive Vice President endorsing contributions from dues exempt members, the second an envelope addressed to The Medical Society of Virginia which mutely spoke volumes.

For our Society to make such an unprecedented recommendation involving as it does a group most of whom are elderly, some are ill, and a few are impoverished, highlights our current fiscal plight. More importantly, it presents an additional spinoff of the injudicious omission of a membership referendum pertaining to the adoption of unification in 1985. This has disrupted the Society more than any issue since mandatory CME in 1976 and with even more disastrous results. Unwise, undemocratic and unnecessary, it was spawned by an over-zealous attempt of our AMA oriented leadership to guarantee an affirmative vote on unification six months prior to a tight AMA presidential election, and, say what they will, that's "the bottom line." In the interests of political necessity, protocol was scrubbed and our Society badly fragmented thereby. Financial problems now supervene because of the loss of 15%-20% of our dues-paying members, ironically in an organization once the model of financial respectability among state medical societies.

Another omission of almost equal significance has been the strange, almost eerie silence of the leadership—no answers and no regrets. Stonewalling may be in vogue on the Potomac, but it's disparaged in Virginia. How welcome and refreshing frank disclosure would be! And it might go a long way towards healing our wounds.

Charles E. Davis, Jr., MD

1312 Pamela Place
Norfolk VA 23509

Committee to focus on physician interrelationships

Last October President Harry C. Kuykendall, MD, sent a very thoughtful letter to the Ethics Committee of The Medical Society of Virginia, a portion of which is quoted here:

I know you share my concern in the area of physician interrelationships and realize that you have already done some preliminary work on this question.

Quite apart from any medical-legal implications, I feel that guidelines of protocol are essential between physicians and that such guidelines have blurred, if not disappeared altogether in recent years. I feel sure this problem is more acute in those areas of the state where physician populations are most concentrated but cannot think the question will not be applicable across the Commonwealth."

When the Ethics Committee met on September 11, 1986, it concurred with Dr. Kuykendall's concerns and felt that physicians interrelationshps should be a priority area for the Committee.

Further, it was felt that the Committee, if component societies felt the need, would volunteer to mediate problems of medical courtesies and physician interrelationships.

Meanwhile, guidelines for such niceties, now somewhat blurred, will be better focused by the Committee.

Gervas S. Taylor, MD
Chairman, Ethics Committee

500 Botetourt Street
Norfolk VA 23510

Questions data base of postmortem diagnosis study

Dr. Bates' article in the September issue of Virginia Medical[1] presents data suggesting that significant lesions are almost always detected in life

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by a combination of history, physical diagnosis, and modern diagnostic techniques. His data is at marked variance from that gathered at the Medical College of Virginia or in a national study with a very large sample size. Out of 2,059 autopsies in the national study (presented in part at the International Academy of Pathologists in 1985), 34% showed that a major diagnosis found at autopsy had been *missed* clinically. Moreover, this percentage of "misses" was greater at community hospitals like Dr. Bates' than at university hospitals. An additional 25% of so-called "minor" diagnoses were also missed clinically. While the latter may not have been of significance to the patients' present (terminal) illness, it is important that physicians have the opportunity to learn about these minor misses, because the factors contributing to the miss might well be important in a different case.

One wonders why Dr. Bates found almost no errors, while the national study and the MCV study show a better than 30% error rate on important diagnoses alone. The probable reason is that many deaths at his hospital were not autopsied at all. Those autopsied presented a series overloaded with "no findings." For example, 11 of the 25 were stillborn babies. For the rest of his series, one wonders what Dr. Bates used as his definition of "significant lesions." Dr. Bates chose not to present all the data. In its absence, the publication of his study is really a disservice. It preaches to the already converted who believe autopsies are now unnecessary, but it fails to provide the data that would reasonably support that position, and it fails to discuss the far better data available in other recent studies, which demonstrate that modern diagnostic techniques continue to leave us with very large discrepancies between clinical and autopsy findings.

Walter I. Rosenblum, MD

Department of Pathology
Medical College of Virginia/VCU
Richmond VA 23298

1. Bates HRjr. Clinical postmortem diagnoses compared. Va Med 1986;113:535

Dr. Bates responds: My article and Dr. Rosenblum's letter show that facts cannot be forced to support dogma and that there may be remarkable differences in health care data from different institutions. These differences should be viewed sympathetically, taking into account the circumstances that may affect the collection and analysis of data. Dr. Rosenblum's objection to my use of perinatal autopsy data is an example of the type of selection bias that I tried to avoid.

MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

COUNCILORS HEAR PROGRESS NOTES OF TORT REFORM CAMPAIGN

"It's going to be a battle. It's not going to be pretty."

Thus Allen C. Goolsby III, The Medical Society of Virginia's veteran counsel, described coming action in the Society's campaign for tort reform at the 1987 General Assembly. Setting for his forecast was a meeting of Council on January 24 in Richmond. Presiding was the new President, Dr. Richard L. Fields. He and most of the other physicians in the room had been present last November in Williamsburg when the House of Delegates authorized an unprecedented $400,000 for legislative activity on behalf of tort reform and raised MSV dues to pay for it. In addition, $73,000 has come into MSV headquarters as contributions from Virginia physicians to support the effort. Thanks to that backing, Goolsby reported, "we're taking a first-class swing at this thing"--but, he cautioned, "we need to lean on the legislators back home."

Some heavy leaning had taken place two days previously when a crowd of physicians fought their way through "the worst snowstorm in years," Goolsby related, to testify at the hearing of the subcommittee on tort reform headed by state Sen. William F. Parkerson, Jr. (D-Henrico). The physicians' testimony focused on a trio of bills developed by the Professional Liability Committee and the Society's newly designated chief lobbyist, Lawrence H. Framme III, in consultation with Counsel Goolsby, the Society's PR consultants, and other pertinent parties. Attorney Framme, who is state chairman of the Deomcratic Party in Virginia, explained the three bills to the assembled councilors.

1. To ease the impasse in obstetrical coverage, an Injured Infants Compensation Act would take birth-related neurological injury cases out of the courts and into a system modelled after Worker's Compensation and administered by the state Industrial Commission. Awards would be made from a fund to which obstetricians, gynecologists, hospitals, and insurance companies would contribute, with a cap of $5,000 on each physician's tab. Gordon D. McLean, chief operating officer of the Virginia Insurance Reciprocal, has said that if the legislature passes this bill, the Reciprocal will resume writing obstetrical coverage.

Chief patron of the measure is Del. Clifton A. Woodrum

NEW RULES FOR DUES ON 1986 RETURN

Regulations governing income tax deductions for membership dues in professional organizations were revised by the Tax Reform Act of 1986, as shown in this table.

Situation	Previous law	New law
Employed physician who pays dues	Deductible as miscellaneous deduction on Schedule A of Form 1040.	Deductible as miscellaneous deduction on Schedule A of Form 1040. Subject to floor of 2% of adjusted gross income.
Employed physician whose employer pays dues	Deductible by employer as ordinary and necessary business expense. Not taxable to employee as working condition fringe benefit.	No change.
Self-employed physician Incorporated	Deductible in full by corporation as ordinary and necessary business expense. Not taxable by physician.	No change.
Self-employed physician Not incorporated	Deductible as ordinary and necessary business expense on Schedule C of Form 1040.	No change.

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(D-Roanoke), who "has gone out of his way to help," Framme noted. "I hope you will thank him." And due to an outpouring of calls/letters to legislators from physicians all over the state, plus solicitation by Melanie Gerheart of the Richmond Academy of Medicine and May Fox of Framme's law firm, the bill has "more copatrons than I have ever seen on one bill," the attorney continued, holding up a list of 15 delegates and 15 senators, one of them the Senate Majority Whip, Hunter B. Andrews, and another Senator Parkerson himself. "It won't hurt to write to them, too," he added.

2. To mitigate the Joint Underwriting Association's "three-level dip into doctors' pockets," i.e., premium, surcharge for stabilization fund, and assessment for losses over/above premium + surcharge, the Society is asking the legislature for limitation on both the policy-holder's exposure and the assessment. "Our research shows that this is the most onerous JUA in the country," Larry Framme asserted, pointing out that as currently set up, the JUA can assess retroactively to an unlimited extent to make up losses. Patron of this bill is Sen. James P. Jones (D-Bristol).

3. The third MSV bill relates to vaccine-related cases. The new federal statute compensating children who react badly gives drug companies who produce the vaccines liability immunity but does not protect physicians who administer the vaccines. The Society's bill would rectify that omission, Framme explained, excepting instances of "gross negligence." The measure applies to the vaccines stipulated in the federal statute: diphtheria-pertussis-tetanus (DPT), measles-mumps-rubella (MMR), and polio. The patron of this bill: Sen./Dr. Clarence A. Holland (D-Virginia Beach).

Counsel Goolsby had high praise for the Professional Liability Committee, Framme, and PR consultants Edward S. DeBolt & Co. "I've never seen such a wonderful team effort, the way this thing has moved ahead," he has said--"not in the spirit of doctors protecting their own pocketbooks but of doctors developing creative responses to a societal problem." Of Dr. Ronald K. Davis, chairman of the committee, "I've never seen anyone work so hard," he told the councilors.

Turning to other medical issues at the 1987 session, Goolsby noted that a bill from the optometrists asking once again for prescribing privileges had been defeated in committee by 14-6, "a very clear vote." In addition to the vaccine-related bill, Clancy Holland is to introduce a bill that discourages the dispensing of prepackaged prescriptions in doctors' offices except in special circumstances, a position expressing The Medical Society of Virginia's official attitude. At least four bills in which paramedicals are asking for direct reimbursement by insurance carriers were in the wings, but "we'll let the Blues answer those," Goolsby said. As for

certificates of need, it was his opinion that the legislators would hold off on that this year, giving Health Commissioner C.M.G. Buttery time to study that situation and formulate recommendations.

An early expression of the tort reform campaign was a "Tort Reform Packet" put together under the aegis of the Public Relations Committee. Dr. Frederick K. McCune, chairman, reported to Council that letters offering the packet went out to all 10,000 physicians in Virginia, and 2,900 packets were sent out to those who responded.

From Dr. Ira D. Godwin, chairman of the Insurance Committee, the Council heard the latest unofficial figures from the Medical Protective Company, which began writing liability coverage in Virginia last November out of Medical Society of Virginia headquarters. Med Pro has insured about 120 physicians thus far, all of them former PHICO policy-holders, Dr. Godwin reported, and 21 doctors have signed up for JUA coverage, 12 of them obstetricians.

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VIRGINIA MEDICAL
FEBRUARY 1987

Oral Cancer and Smokeless Tobacco

Richard P. Elzay, DDS, *Richmond, Virginia*

Beginning this month, federal law will require all smokeless tobacco products to carry warnings that their use may cause oral cancer, gum disease and tooth loss and that they are not a safe alternative to cigarettes. The author reviews the history of smokeless tobacco usage and describes oral changes which can result from its use.

MANKIND has either snuffed, dipped, chewed or smoked tobacco for well over 500 years. The social history and folklore of tobacco has been thoroughly and interestingly reviewed by Christen and others,[1] from which salient historical vignettes have been extracted for this paper.

Apparently the American Indians were the first to use tobacco in all its various forms, inasmuch as they smoked, chewed and sniffed it through their nostrils. Christopher Columbus and his crew, in 1492, reported finding natives in the West Indies who "drank smoke." Accompanying Columbus on his second voyage was Friar Roman Paine, a Franciscan monk, who observed that the Carib Indians of the lesser Antilles sniffed finely powdered tobacco leaves as well as smoked. These natives smoked or sniffed tobacco through artistically carved pipes for ceremonial and medicinal purposes as well as a symbol of goodwill. The latter purpose obviously led to the term "peace pipe." Interestingly, the Indians called this pipe the "tobago" or "tobaca." A slight alteration of this name was made by the Spaniards and applied to the plant and its cured leaves. Tobacco use was thought to provide visions of the hereafter through a psychic experience and it also was used during ritual dances as a ceremonial incense to offset weariness, hunger and pain. Moreover, tobacco was used throughout the West Indies in the form of poultices and paste for treating burns, sores, cancers, sciatica, diseases of the liver, spleen and womb, chills, convulsions, worms, colic, warts, corns and mad dog bites. Hence, tobacco may very well have been our first American "wonder drug."

Friar Paine carried tobacco back to Portugal, where the practice of sniffing the finely ground tobacco leaf (snuff) spread to the Iberian Peninsula. Andre de Thevet, a French member of the coloniz-

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ing expedition to Brazil, took tobacco seeds back to France. Jean Nicot, who in 1559 was French ambassador to Sebastian, King of Portugal, discovered cultivated seeds growing in the Portuguese Royal Gardens and began to grow this intriguing plant, later known as the "golden weed" in colonial Virginia, in his own garden. He firmly believed that mashed tobacco leaf poultices could effect miraculous "cures." Roughly 200 years later Linnaeus gave the botanical name of "nicotiana tabacum" for the tobacco plant genus and the name of Jean Nicot was permanently linked with tobacco. Later on the active ingredient of tobacco was isolated and called nicotine. By the 17th century the use of tobacco in various forms had spread throughout Europe. The Dutch promoted the use of snuff and actually gave snuff its name.

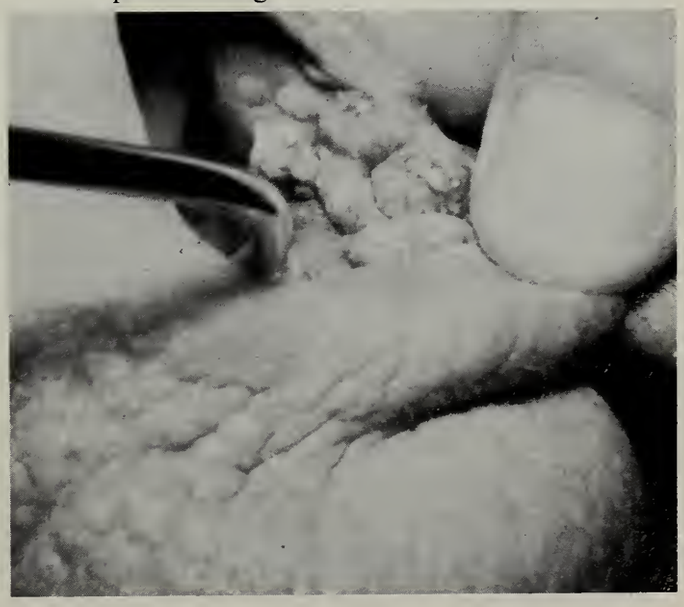
It is thought that tobacco was introduced in England by Sir John Hawkins, Sir Francis Drake and Sir Walter Raleigh, but Raleigh is generally credited with introducing and popularizing smoking in England around 1565. The popularity of snuff increased considerably in Britain during the time of the Great Plague of 1665, when it acquired the reputation as a powerful disinfectant and prophylactic agent against disease. Actually, snuff and smoking helped overcome the unpleasant odor of dead and decaying bodies. Aside from its practical use, sneezing had for hundreds of years been deliberately induced by inhaling aromatic and sneezing powders in the nostrils for religious, medicinal and social purposes. In fact, these substances (sternutatories) had been employed since the time of Hippocrates.

In the 19th century the use of smokeless tobacco fell into disfavor largely as the result of the scientific work of Robert Koch and his discovery and isolation of the tubercle bacillus organism. The disfavor of snuff was further augmented by the "germ" theory postulated by Koch, Pasteur, Lister, Ehrlich and others. Their work indicated that dormant tuberculosis organisms and other harmful germs, in dried form, could survive and spread by air. As a result, spitting in any form was viewed as unsanitary: the spittoons disappeared. A new phenomenon arose in America during the turn of the 19th century called "dental snuff." Dental snuff was advertised as a panacea which would relieve toothache, cure neuralgia, scurvy, bleeding gums, whiten teeth and prevent decay. These claims were later dropped and other qualities of the snuff such as mildness, flavor, and satisfaction were emphasized.

Consumption Patterns Today

There are basically four kinds of chewing tobacco and they are: plug tobacco, loose leaf, twist tobacco and snuff. Since 1970, there has been an increased acceptance of chewing tobacco as a substitute for cigarette smoking in the United States. The sales of smokeless tobacco have increased at the rate of 11% each year since 1974,[2] and it is estimated that there are 7 million users in the US, many of whom are young.[3] An evaluation of snuff dipping and tobacco chewing in a group of Texas college athletes suggested that up to a third of football and basketball players were using smokeless tobacco.[4] A survey of 5,000 male and female Massachusetts high school students found that 28% of the males were experimenting with snuff.[5] There is no data

Figs. 1 and 2 (below). Clinical appearance in adults of histologically confirmed verrucous carcinoma of the mandibular alveolar ridge (left) and of the buccal mucosa. *Photos courtesy Dr. William R. Beasley.*



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available, at this time, on the use of snuff by Virginia school age children.

It is doubtful that the upswing in the use of smokeless tobacco products, which began early in the 1970s, was a spontaneous happening. Tobacco manufacturers have permeated the media with cleverly devised television and magazine advertising schemes, which often feature entertainers and sports personalities, role models and heros to the young, hawking the use of smokeless tobacco products. Sales of loose leaf tobacco in the US increased 14.6% between 1978 and 1984 and the sales of snuff increased 32.5% in the last six years prior to 1986.[6]

In addition to heavy advertising campaigns by the tobacco industry, there have been reports[7] in the medical literature which have encouraged the use of smokeless tobacco products as a substitute for cigarettes by suggesting that the joys of tobacco can be realized while reducing the risk of lung cancer, emphysema or heart disease.

The Cancer Relationship

Admittedly, the literature has been at variance as to whether or not a causal relationship exists between the use of smokeless tobacco products and the development of oral, pharyngeal and laryngeal cancer. Several investigators have suggested that a direct relationship between the use of smokeless tobacco products and cancer does exist.[8-17] Especially noted has been verrucous carcinoma, which was described in 1948 by Ackerman.[18] Ackerman stated that chewing tobacco was probably the most important etiologic factor in the development of verrucous carcinoma. Verrucous carcinoma is an exophytic, slow-growing, well-differentiated, invasive squamous cell carcinoma. (Figs. 1 and 2). It generally arises in the snuff dipper's patch, which represents an epithelial hyperplasia characterized clinically as a white (leukoplakia), thickened, furrowed mucosal lesion (Fig. 3 and 4). Christen speculates that over 600 cases of oral, pharyngeal and laryngeal carcinoma can be attributed directly to the use of smokeless tobacco products;[19] however, other investigators have not found significant premalignant or malignant oral changes related to the use of smokeless tobacco or chewing tobacco.[20-22]

It is of interest to note the high frequency of oral pharyngeal cancer among the population in India, where the incidence for such is 47% of the total cancers found.[23] The increased incidence rate of oral-pharyngeal cancer among this population has been linked to the use of tobacco in various forms, including cigarettes, cigars and chewing tobacco.[24]

A case control study by Winn and others involving 255 women with oral and pharyngeal cancer reported that the exceptionally high mortality rate from oral-pharyngeal cancer among white women in the South was primarily related to chronic use of snuff.[7] These observers noted a strong dose-response relationship. They found the relative risk associated with snuff dipping among white nonsmokers was fourfold. Among chronic users the risk approached 50-fold for cancers arising in the gingival and buccal mucosa, tissues that come in direct contact with the tobacco powder. Moreover, at least 87% of these tumors were attributed to snuff.

There are, at present, three classifications of carcinogens (mutagens) known to occur in smokeless tobacco products. They are the N-nitrosamines, polynuclear aromatic hydrocarbons and polonium-210.[6] Hirsch and Johansson, in Sweden, experimentally produced oral epithelial hyperplasia, hyperorthokeratosis, dysplasia and one squa-

mous cell carcinoma in Sprague-Dawley rats exposed to snuff for 10-16 hours per day, five days a week for most of the rats lifetime.[25] Hoffman reports similar experimental findings in rats utilizing a US brand of snuff.[6]

Most of the scientific investigations on the clinical and histologic changes associated with the use of smokeless tobacco products have been limited to adults. Greer and Poulson recently reported on their evaluation of oral hard and soft tissue alterations associated with the use of smokeless tobacco in a teenage population.[2] In a total sample of 1,119 Colorado high school students, they found 117 users of smokeless tobacco, most of whom were males. Of these users, fifty-seven (48.7%) had lesions of the teeth, periodontium or mucosa. These changes were: 1) hyperkeratotic (leukoplakic) or erythroplakic lesions of the oral mucosa, 2) gingival or periodontal inflammation, 3) a combination of oral mucosal lesions and periodontal inflammation, and 4) cervical erosion of the teeth. They found no evidence of tobacco-associated dental caries; however, Sitzes has reported finding evidence of cervical dental caries in several patients who chewed sweetened smokeless tobacco.[26] It has been suggested that the use of smokeless tobacco products may protect one from dental caries by either increasing the salivary flow stimulated by the tobacco or by the presence of fluoride, which is naturally found in tobacco.[2] In light of the suggested ominous oral changes attributed to the use of smokeless tobacco, it is not recommended that smokeless tobacco products be used to minimize or control dental caries.

Summary

Physicians and dentists should examine thoroughly the oral soft tissues of all their patients and to view any oral, pharyngeal or laryngeal erythroplakic or leukoplakic alteration of the mucous membrane as a potential premalignant lesion until proven otherwise. The medical and dental professions should cooperatively promote patient and public awareness on the cancer risks associated with the use of smokeless tobacco and discourage its use.

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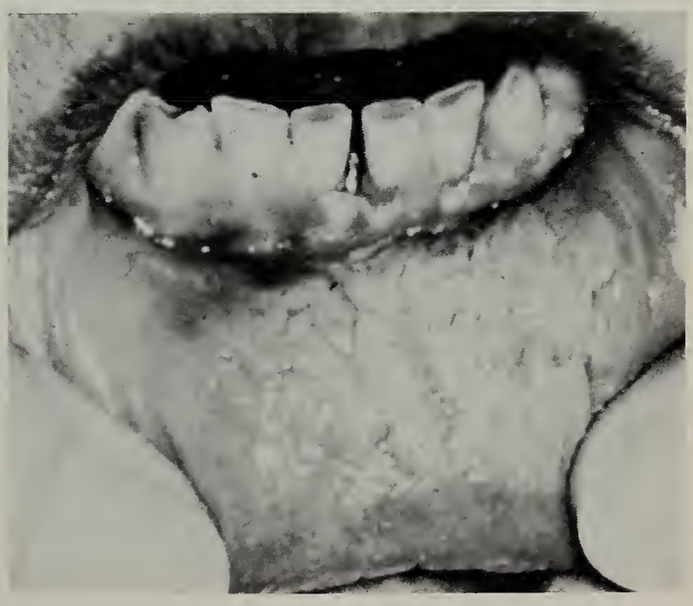
Figs. 3 and 4 (below). Snuff dipper's pouch of the buccal mucosa (left) and the labial vestibule, both in adults, show leukoplakia, furrowed (left) and severely thickened and fissured.



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Recurrent Meningitis With Familial C8 Deficiency: Case Report

W. M. Eby, MD, W. R. Irby, MD,
J. H. Irby, MD, and Shaun Ruddy, MD,
Richmond, Virginia

The serum of a 23-year-old white male with recurrent neisserial meningitis was found to have severely depressed complement component eight hemolytic activity in vitro. No serum inibitors of C8 were detected. A study disclosed that his parents, a brother and a sister all had similarly low C8 activity. Subsequent findings supported the presence of familial C8 functional deficiency with autosomal codominant mode of inheritance and the presence of C8 antigens indicative of a β-chain defect.

SINCE the description in 1976 of a genetically transmitted C8 deficiency (C8D) in a 23-year-old black woman with recurrent disseminated gonococcal infections[1], several kindreds with this disorder have been reported.[2] Most of the people with C8D experience systemic neisserial infections, sometimes recurrent in nature. Recently, two distinct subtypes of C8D have been identified[3] which seem to have different clinical manifestations. The purpose of this report is to describe three siblings with C8D along with their clinical histories and provide evidence for the subtype of C8 deficiency.

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This study was supported in part by research grants AI 13049 and AM 18976 from the National Institutes of Health and an Arthritis Clinical Research Center grant from the Arthritis Foundation. It is publication No. 226 from the Charles W. Thomas Arthritis Fund.

Submitted 2-18-86.

Materials and Methods

Reagents. Isotonic barbital buffer, $\mu = 0.145$, pH 7.5, containing 0.1% gelatin, 1.5×10^{-4}M calcium, and 0.5×10^{-3}M magnesium (GVB^{++}, for gelatin veronal buffer), dextrose barbital buffer, $\mu = 0.075$ ($DGVB^{++}$, for dextrose gelatin veronal buffer), and barbital buffer containing 0.04M disodium ethylenediaminetetraacetic acid without calcium and magnesium (GVB-EDTA) were used as diluents. Functionally pure individual complement components C5, C6, C7, C8, and C9 were obtained from Cordis Laboratories (Miami, Fl). Guinea pig C1,[4] human C2,[5] Cr,[5] and C3[6] were prepared as previously described.

Assay Systems. Serum total hemolytic complement (CH50) was determined by the method of Kent and Fife.[7] Sheep erythrocytes (E) were sensitized with rabbit antibody (A) and serially incubated with guinea pig Cl (Clgp), human C4 and oxidized human C2.[8] These were suspended in $DGVB^{++}$ at 10^8 per milliliter. The sum of the activities of components C3 through C9 was measured by the capacity of test serum to lyse $EAC1gp4^{oxy}2$ (EAC = erythrocyte antibody complement complexes) in GVB-EDTA buffer. The reaction mixture contained 0.1 ml of the serum dilution in GVB-EDTA and 0.1 ml $EAC1gp4^{oxy}2$ at 10^8 per ml. The mixtures were incubated for 90 minutes at 37°C; then 1.5 ml 0.9% NaCl was added and the resultant suspension centrifuged. Cell lysis was calculated from measurements of supernatant absorbance at 414 nm. Activity of C3 through C9 was calculated in the same manner as total hemolytic complement activity and reported in CH50 units.

For the identification of individual component deficiency, reaction mixtures containing 0.30 ml EA at 5×10^8/ml in GVB^{++}, were incubated with 0.35 ml proband's serum diluted 1/50 in GVB^{++} and 0.1 ml GVB^{++} containing 225 units of one of the individual components C3, C5, C6, C7, C8 or C9 for 30 minutes at 37°C. The mixtures were then diluted with 1.5 ml 0.9% NaCl, centrifuged, and the extent of lysis determined.

The hemolytic activity of C8 was measured by serum-induced lysis of $EAC14^{oxy}2$ in the presence of a "developer" containing C3, C5, C6, C7, and C9. The reaction mixture contained 0.1 ml target cells at 10^8 per ml, 0.1 ml developer of C3, C5, C6, and C7 (100 U/ml) and 0.1 ml of serum at various dilutions in GVB-EDTA. These were incubated at 30°C for 30 minutes, and then 0.1 ml C9 at 100 U/ml was added and the mixture incubated at 37°C for 60 minutes. The mixture was then diluted with 1.5 ml 0.9% sodium chloride and centrifuged. The propor-

tion of cells lysed (y) was calculated by measurement of supernatant absorbance at 414 nm. The average number of hemolytic sites per cell (Z) was computed from an application of Poisson distribution ($Z = -\ln(1-y)$). This was plotted against the serum concentration, the intercept at $Z = 1.0$ determined and C8 activity expressed as the reciprocal of the serum dilution at this intercept. In order to verify the specificity of this assay, dilutions of functionally pure C8 were substituted for the serum dilutions and the same measurements and calculations performed. To exclude the presence in the serum of a C8 inhibitor, titration of purified C8 was repeated with and without the addition of 0.1 ml C8 deficient serum diluted 1/100 in GVB-EDTA.

Polyclonal goat anti-C8 was obtained from Atlantic Antibodies (Scarborough, Maine). Double diffusion was performed in 1.5% agarose gel buffered in veronal buffered saline (VBS).

Clinical History

Investigation of a possible immune deficiency was prompted by the 23-year-old proband's eight hospital admissions for meningitis (Table 1). He had a medically uneventful childhood until age 13 years when he suffered his first episode of meningitis. *Neisseria meningitidis* was cultured from his cerebrospinal fluid (CSF) but no grouping of the organism was performed. Subsequently, he had two episodes of culture proven *N. meningitidis* meningitis, once with Group C and once with Group Y organisms. This was followed by one episode of aseptic meningitis, although CSF findings were suggestive of a bacterial infection.

The patient then had a non-displaced parietal skull fracture from a motor vehicle accident. No CSF leakage ensued and no facial fractures were demonstrated by tomography. Since the accident, he had four additional episodes of aseptic meningitis, one of which had CSF findings suggestive of a bacterial etiology.

Two of the proband's siblings, II-1 and II-2, also had episodes of meningitis (Table 1). None of the episodes of meningitis in the kindred occurred concurrently. II-1 had one episode of meningitis at age 36 years in which gram-negative intracellular diplococci were demonstrated in CSF, and gram-negative diplococci were found in CSF culture. II-2 had culture proven *N meningitidis* meningitis (no grouping done) at age 33 years and a history of meningitis at age 6 years for which records are not available.

Results

The pedigree of family S, together with each member's serum total complement (CH50), terminal sequence activity (C3-C9) and C8 activity (C8), is shown in Figure 1. The values obtained by simultaneous titrations of a normal human serum were 200 u per ml for CH50, 860 U per ml for C3-C9 and 3400 U per ml for C8 respectively.

The proband II-4 had undetectable serum total complement activity. His sister II-1 and brother II-2 who had meningitis had severely depressed or undetectable serum total complement activity. His parents I-1 and I-2, and one sister II-3 had normal serum total complement activity. A similar pattern was demonstrated for terminal sequence activity (C3 through C9). The proband had less than 0.2% of normal C8 activity; his affected siblings had up to 6% activity. Both his parents had about one-half normal C8 activity, and the unaffected sibling had

Table 1. Chronology of Clinical History and Cerebrospinal Fluid Findings.

Pt.	Date	Age	Clinical Findings
II-4	2/72	13	2 days of nausea, vomiting, diarrhea, 1 day with stiff neck. CSF culture *N meningitidis*
	5/74	15	1 day severe headache, nausea, stiff neck, CSF WBC 10.3K (100% polys). CSF culture: no growth
	2/81	22	24-36 hr fever, nausea, stiff neck. CSF culture: *N meningitis* group C
	4/81	22	1 day nausea, stiff neck. CSF culture: *N meningitidis*, group Y
	7/81	22	4-6 hr severe headache, nausea, stiff neck. CSF protein 78, glucose 52, WBC 5 cells, culture: no growth. Tomography of facial area normal
	10/82	23	1 day headache, stiff neck, fever. CSF WBC 4.4K (100% polys), culture negative
	11/82	23	1 day low grade temp, chills, severe headache, meningismus. CSF: no cells, protein 29, glucose 55, WBC no cells. Culture: no growth.
	12/82	23	36 h severe headache, stiff neck, nausea, vomiting, temp 101°. CSF: protein 24, glucose 76, WBC no cells. Culture: no growth.
II-1	12/62	36	2 day headache, stiff neck, vomiting. CSF: gram negative intracellular diplococci on smear and culture.
II-2	12/67	33	History of meningitis age 6, 12 hr headache, fever, Waterhouse-Friderichsen syndrome. CSF culture: *N meningitidis*.

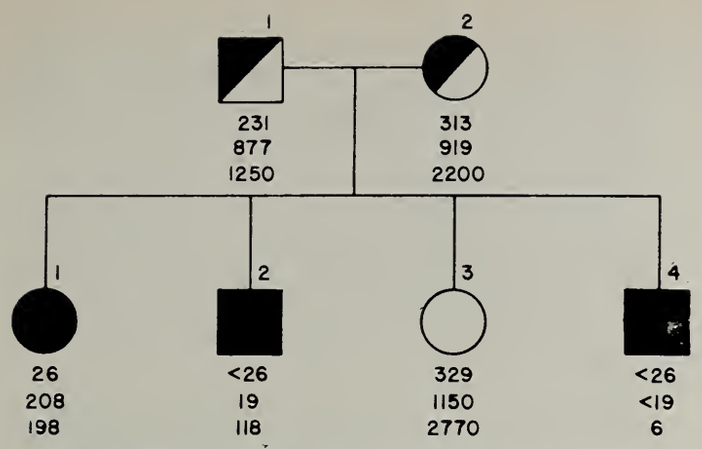

Fig. 1. Pedigree of Family S. Open symbol is homozygous unaffected (normal serum C8 activity), half-filled symbols are heterozygous unaffected (half-normal serum C8 activity), and filled symbols are affected (low or absent serum C8 activity) individuals. The numbers below the symbols, reading from top to bottom, are CH50, serum C3-C9 activity, and serum C8 activity.

near normal C8 activity.

The C8 activity for I-1 and I-2 is compared with C8 activity of pooled normal human serum in Figure 2. The average number of damaged sites per erythrocyte (Z) is plotted against the relative amounts of serum titrated in this C8 assay. Twice as much of either parent's serum is required to achieve the same degree of hemolysis as the pooled normal human serum. No inhibitor to the activity of C8 could be demonstrated in the proband's serum (Fig. 3). A pattern of identity was obtained between the proband's serum and normal human serum by double immunodiffusion using goat anti-human C8 antibody.

Discussion

Activation of complement components C1 through C7 via the classical activation pathway or the alternate pathway activation of C3 is a complex process with various biologic consequences, including increased vascular permeability, attraction of polymorphonuclear leucocytes, and the enhancement of phagocytosis.[9] Further interaction with C8 and C9 completes the formation of the membrane attack complex (C5-C9), which causes alterations in target cell membranes and leads to osmotic lysis and cell death.[10] Failure to generate the membrane attack complex impairs serum bactericidal activity and is associated with recurrent infections caused by *N meningitidis* and *N gonorrhoeae*.[2] This failure to generate the membrane attack complex can be caused by deficiencies in any of the late components of complement (C3-C9).

The eighth component of complement consists of two subunits. A subunit consisting of the covalently

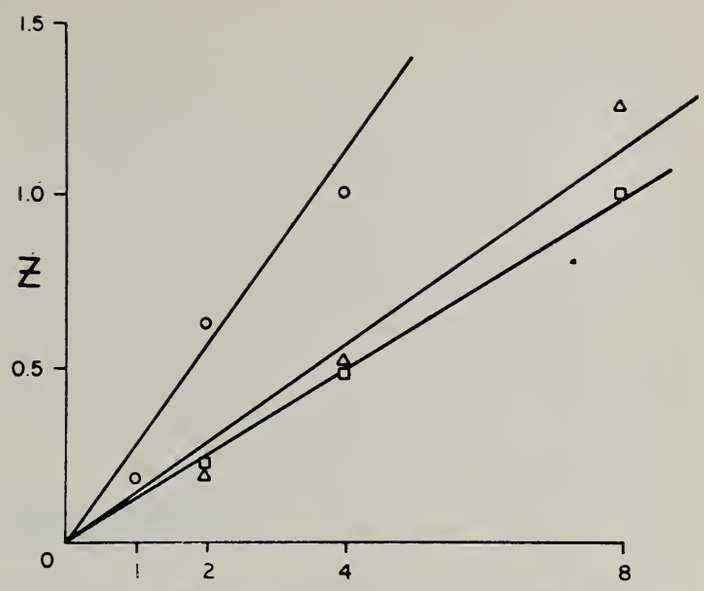

Fig. 2. Comparison of C8 activity in serum from I-1 (square) and I-2 (triangle) with the C8 activity of pooled normal human serum (circle).

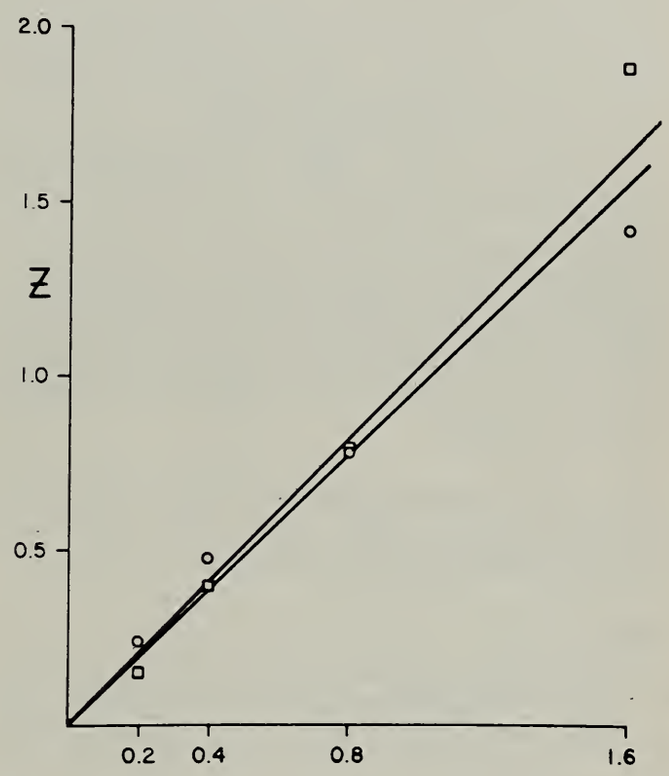

Fig. 3. Titration of functionally pure C8 with (open squares) and without (open circles) C8 deficient serum.

bonded α-chain (MW 77,000) and γ-chain (MW 13,700) is non-covalently associated with the β-chain (MW 63,000).[11] Two unlinked genetic loci encode for the C8α-γ and C8β subunits.[12] Tedesco et al demonstrated two types of C8D in man.[3] The sera of his Group I subjects contained C8α-γ subunits, reacted with specific antiserum to human C8 to produce a precipitin line, and lacked the C8 β-chain. The sera of his Group II subjects contained C8 β-chains, but lacked C8α subunits and did not

react with anti-C8 antiserum.

To date, 31 people with C8D from 22 kindreds have been reported. Of these 31, six lack the C8α-γ subunit, 18 lack the C8 β-chain, and seven have not been characterized. Differences between the clinical history of the two subtypes of C8D exist. All of the 18 people with C8 β-chain deficiency are Caucasian and most of their infections have been caused by *N meningitidis* rather than *N gonorrhoeae*. Those with C8α-γ subunit deficiency are black or hispanic and their infections have been caused by *N gonorrhoeae*. Both subtypes of C8D are genetically transmitted as autosomal codominant traits.[2]

In conclusion, the proband has C8 deficiency. This is probably of the C8 β-chain subtype since his serum reacts with antibody to C8. Both of his parents have one-half normal C8 activity and have been free of neisserial infections. Two of his siblings have C8D and have experienced neisserial meningitis. One sibling has normal C8 activity and has not had neisserial infections. The C8 activity findings are consistent with an autosomal codominant mode of genetic transmission.

The medical history of the proband agrees with that of other C8 β-chain deficient patients who have been infected with *Neisseria*. He is Caucasian, the causative organism is *N meningitidis*, he had multiple episodes of infection, he lacked autoimmune or rheumatologic disorders, and he was considerably older when he had his first episode of *N meningitidis* meningitis than the median age of 3 years found in normal people.[2]

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Grand Rounds: Idiopathic Pulmonary Hypertension

From the Department of Medicine,
University of Virginia School of Medicine.
Case Presentation by Christopher Rembold, MD
Discussion by C. Edward Rose, Jr., MD

Case Presentation

Dr. Rembold: A 54-year-old male truck driver was hospitalized in 1979 with peripheral edema, jaundice, and ascites. He was diagnosed then as having alcoholic cirrhosis, and administration of spironolactone brought resolution of his ascites and edema.

The patient suffered thereafter from chronic dyspnea but continued to work until March 1984, when he developed syncope and chest pain. He was admitted to his local hospital on 4 March 1984 with evidence of myocardial infarction, including a peak creatine kinase of 978 U/L (5% MB fraction) and a positive technetium pyrophosphate scan. An electrocardiogram showing a pattern consistent with right bundle branch block did not differ from one done in 1979, and an echocardiogram revealed considerable dilation of the right ventricle. The patient was referred to the University of Virginia Medical Center for further evaluation and treatment.

Presented at Medical Grand Rounds on 3 May 1984. Edited by Marcia Day Finney, MA. Address correspondence to Mrs. Finney at the Department of Medicine, Box 466, University of Virginia Medical Center, Charlottesville VA 22908.

The patient's past medical history included 50 pack-years of cigarette smoking. He had no history of cardiac murmur, pulmonary disease, or deep venous thrombosis.

Physical examination

On admission, the patient was a healthy-appearing white male in no distress at rest but very tachypneic with minimal exertion. Blood pressure was 118/75 mm Hg, pulse 84/min, respiratory rate 16/min, and oral temperature 35.1°C. With the exception of mild pectus excavatum, there were no abnormalities noted on the chest examination. However, the apical cardiac impulse was sustained in the fifth intercostal space in the anterior axillary line. S_1 was normal, but the pulmonic component of S_2 was increased in amplitude. There were no murmurs. There was marked peripheral digital cyanosis but no clubbing or peripheral edema.

Laboratory findings

A metabolic screen done on admission was normal except for BUN of 32 mg/dl, serum creatinine of 1.7 mg/dl, uric acid of 10.5 mg/dl, and total bilirubin of 1.8 mg/dl. Serum enzymes included alkaline phosphatase of 82 U/L, glutamic oxaloacetic transaminase (SGOT) of 42 U/L, glutamic pyru-

vic transaminase (SGPT) of 55 U/L, and lactate dehydrogenase (LDH) of 388 U/L. The white blood cell count was 7400/mm^3 with a left shift, hematocrit 48%, and platelets 127,000/mm^3. The prothrombin time was 13.9 sec/11.4 sec (control), and the partial thromboplastin time was normal. Arterial blood gases on room air revealed PaO_2 62 mm Hg, $PaCO_2$ 29 mm Hg, and pH 7.48.

Hospital course

An electrocardiogram showed first-degree AV block, right bundle branch block with right axis deviation, and bilateral atrial enlargement. The chest roentgenogram (Figure 1) revealed right ventricular prominence with dilation of the central pulmonary arteries consistent with pulmonary hypertension. Echocardiography demonstrated massive enlargement of the right atrium and ventricle and paradoxical septal motion consistent with right-sided pressure/volume overload; no valvular abnormalities or atrial or ventricular septal defects were apparent. A cardiac Doppler study suggested tricuspid and pulmonic regurgitation. A ventilation-perfusion scan of the lungs revealed a single mismatched perfusion defect in the upper lobe of the right lung. No evidence of obstructive or restrictive lung disease was detected on spirometry. Cardiac catheterization showed left ventricular pressures and the coronary arteries to be normal; the pulmonary arterial pressure was elevated—85/40 mm Hg (systolic/diastolic)—but the pulmonary capillary wedge pressure was normal at 10 mm Hg. Oxygen saturation curves gave no indication of an intracardiac shunt.

The patient was diagnosed as having idiopathic pulmonary hypertension, and treatment with topical nitroglycerin and oral nifedipine was initiated, as was warfare in anticoagulation. He was discharged on 23 March 1984 to the care of his local physician and the UVA cardiology clinic. However, shortly thereafter, he developed increasing dyspnea and swelling in the lower extremity on the side of the cardiac catheterization and was readmitted to his local hospital. He was treated with heparin but died the day after the admission. An autopsy was not done.

Discussion

Dr. C. Edward Rose, Jr.: This patient illustrates well the principal problem we encounter with pulmonary hypertension: the signs and symptoms of the condition do not become apparent until very late in the course, only once severe disease is present. Treatment at that point in the disease

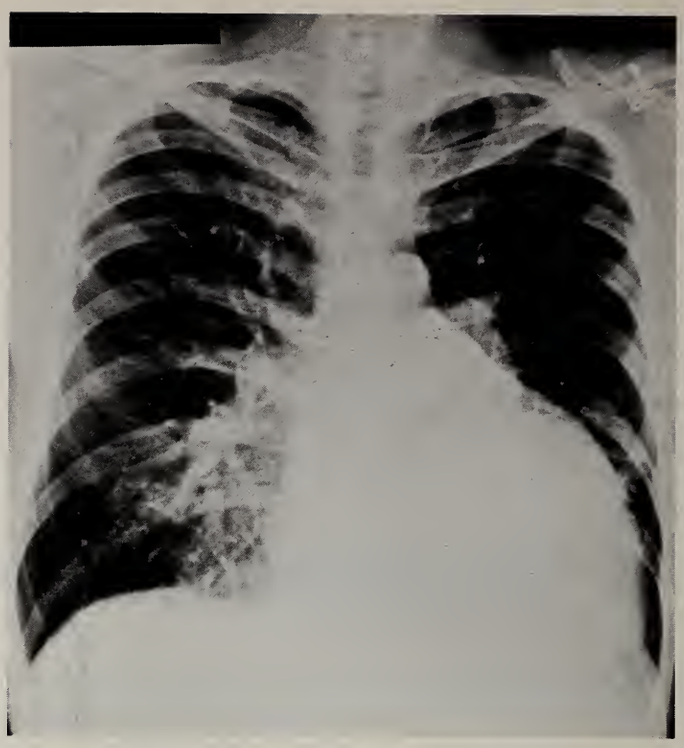

Fig. 1. Admission chest roentgenogram showing central pulmonary arterial enlargement and right ventricular prominence.

carries significant risk and all too often proves inadequate to ensure the patient's survival.

The disease can develop quite silently. Sustained pulmonary hypertension leads to increased right ventricular work, which is compensated by right ventricular hypertrophy, but only to a point. Once excessive right ventricular overload has brought about progressive dilation and failure, the patient becomes symptomatic and we see the syndrome of cor pulmonale manifested by jugular venous distension, peripheral edema, ascites, and hepatomegaly.

The symptoms and signs of pulmonary hypertension are notoriously nonspecific. Symptoms include dyspnea, weakness, palpitations, chest pain, syncope on exertion, cough, hoarseness, and, in the presence of cor pulmonale, ascites and edema. The only symptom that might point directly to pulmonary hypertension is syncope on exertion, something which the patient we are discussing experienced just prior to his hospital admission early in March 1984. Signs of pulmonary hypertension include an increased pulmonic component of the second heart sound (S_2), left parasternal heave, right ventricular S_3 gallop, pulmonic ejection click, insufficiency murmurs of the pulmonic or triscuspid valve, and, with cor pulmonale, ascites, edema, and jugular venous distension. Preterminally, hypotension and low cardiac output are seen.

There are three measurements which point to an abnormality in the pulmonary circulation in patients

with pulmonary hypertension: (a) elevated pulmonary arterial pressure, (b) increased pulmonary arteriolar resistance, and (c) elevated pulmonary arterial diastolic wedge pressure gradient. Any systolic pulmonary arterial pressure greater than 30 mm Hg is consistent with pulmonary arterial hypertension, with normal at sea level being 18-25 mm Hg. A mean pulmonary arterial pressure greater than 20 mm Hg is also consistent with pulmonary hypertension, sea-level normal being 12-16 mm Hg.

An expression of Ohm's law states that pulmonary arteriolar resistance (PAR) is equal to the pressure divided by the flow—PAR = PAm − Pcw/CO—where PAm is the mean pulmonary arterial pressure, Pcw is the pulmonary capillary wedge pressure (back pressure), and CO is the cardiac output as measured either by thermodilution or the Fick method. If these terms are expressed in millimeters of mercury (mm Hg) and liters per minute (L/min), respectively, then multiplying by 80 will convert mmHg/L/min to dynes · sec · cm^{-5}. The normal range for pulmonary arteriolar resistance is 45-120 dynes · sec · cm^{-5}, with a mean of 70. An elevated PAR calculation thus suggests an increase in the precapillary arteriolar vasomotor activity. However, Enson and Harvey[1] have pointed out a problem with this resistance calculation. Devised to apply to electrical circuits, not to a physiologic circulation involving distensible vessels and pulsatile flow, the calculation is oversensitive to changes in cardiac output and wide swings in calculated PAR may be observed and misunderstood.

Enson and Harvey have suggested using the gradient between the pulmonary arterial diastolic pressure (PAd) and the Pcw as a third way of assessing pulmonary circulation. Normally, the systolic pulmonary arterial pressure and the mean pulmonary artery pressure are influenced directly by cardiac output and stroke volume. In contrast, because diastolic pulmonary arterial pressure is measured at a time when blood flow is practically zero, the PAd is influenced by neither flow nor stroke volume and depends only on (a) the back pressure, which is reflected by the Pcw, and (b) resistance in the pulmonary arteriolar (precapillary) vessels. Subtraction of Pcw from PAd results in an index of the precapillary resistance. Normally, the PAd − Pcw gradient is less than 5 mm Hg. Enson and Harvey found that a PAd − Pcw gradient of more than 5 mm Hg correlates strongly with increased resistance in the precapillary vessels. They also found this determination to be superior to the resistance calculation. On this basis, we now routinely recommend using the PAd − Pcw gradient to evaluate the pulmonary circulation in patients with pulmonary hypertension.

Pulmonary hypertension has three major causes: (a) postcapillary pulmonary venous hypertension, (b) precapillary high-pressure feed-in, and (c) precapillary diminished pulmonary arteriolar cross-sectional area. Postcapillary pulmonary hypertension results from pulmonary venous hypertension in which there is backward transmission of pressure. When increased back pressure is the sole cause of the hypertension, the PAd − Pcw gradient will initially be normal (<5 mm Hg). However, with a sustained elevation of back pressure, as occurs in mitral stenosis, the precapillary vessels begin to show evidence of disease as well and the patient may develop an abnormal PAd − Pcw gradient in addition to an elevated Pcw. Pulmonary venous hypertension is seen in a number of diseases, the most common of which are left ventricular failure in coronary artery disease, valvular heart disease, and congenital heart disease. Other, less common causes include left atrial myxoma with obstruction of flow and pulmonary venoocclusive disease.

Precapillary problems relating to a high-flow or high-pressure feed-in from the left circulation to the right may also cause pulmonary hypertension. Pulmonary hypertension of this etiology may be seen in the presence of pretricuspid abnormalities, such as atrial septal defect or post-tricuspid abnormalities such as ventricular septal defect.

The most common of the three causes of pulmonary hypertension is disease which diminishes the overall cross-sectional area of the pulmonary arteriolar bed by means of vasoconstriction, obliteration, or occlusion. A problem in the precapillary bed will yield an abnormal PAd − Pcw gradient (>5 mm Hg). Alveolar hypoxia is the most common and most important stimulus to pulmonary arteriolar vasoconstriction and is seen in obstructive airway disease (e.g., asthma, emphysema, chronic bronchitis, bronchiectasis), cystic fibrosis, obese hyperventilation syndrome, and, in certain geographic areas, altitude hypoxia. In addition, pulmonary arteriolar vasoconstriction secondary to alveolar hypoxia is enhanced by acidosis of either respiratory or metabolic origin; the result is increased pulmonary hypertension. There are also certain chemicals, e.g., the pyrrolizidine alkaloids found in the beans of the poisonous *Crotalaria* plants, which can induce pulmonary hypertension.

Vascular obliteration causing diminution of the pulmonary arteriolar cross-sectional area occurs in the presence of fibrosis secondary to disease processes such as sarcoidosis, interstitial fibrosis, and

collagen vascular diseases such as scleroderma and lupus erythematosus, and as a result of congenital aplasia and lung resection. Obliteration of pulmonary blood vessels is also a well-recognized feature of emphysema.

Occlusion of the pulmonary arterioles may also severely limit the size of the cross-sectional area and give rise to pulmonary hypertension. Among the causes of such occlusion are acute or recurrent thromboembolism, fibrosing mediastinitis (most often as a result of histoplasmosis), and, in the developing world, parasitic diseases such as schistosomiasis and filariasis.

Other less well understood causes of diminished vascular cross-sectional area include pulmonary arteritis occurring in Takayasu's disease and idiopathic pulmonary hypertension or primary pulmonary hypertension where the precise mechanism of the pulmonary hypertension is not known. In such instances, multiple processes may be responsible, from vasoconstriction of the precapillary vessels to anatomic changes in the arterioles.

Pulmonary hypertension itself gives rise to greater pulmonary hypertension as a result of damage to the arterioles. With chronic sustained pulmonary hypertension come changes in the anatomy of the arteriolar intima and media so that the radii of these vessels are diminished, a development which in turn increases the resistance of blood flow to the fourth power of the decrease in radius. Any cause of pulmonary hypertension, be it hypoxemia, pulmonary venous hypertension, or high-pressure or high-flow feed-in, will bring about more pulmonary hypertension simply by virtue of changes in the arteriolar architecture.

Establishing a diagnosis of pulmonary hypertension is difficult because, until recently, reliable measurement of pulmonary arterial pressure could be achieved only with right heart catheterization. A non-invasive Doppler probe is used now in some centers to evaluate pulmonary blood flow velocity, and this technique may allow earlier diagnosis of pulmonary hypertension. However, while the Doppler probe has identified in patients with pulmonary hypertension a characteristic qualitative pattern of decreased ratio of acceleration time to total right ventricular ejection time[2], the full diagnostic utility of this technique has yet to be documented.

In evaluating a patient with pulmonary hypertension, it is important first to rule out the most common associated diseases, cardiac disease and pulmonary disease. A right heart catheterization is performed therefore not only to confirm the presence of pulmonary hypertension but to exclude—by sampling blood in the right atrium, right ventricle, and pulmonary artery and looking for stepped-up oxygen saturation—the possibility of a left-to-right intracardiac shunt. In addition, the pulmonary capillary wedge pressure measurement obtained during catheterization can be used to rule out postcapillary hypertension. Other types of cardiac disease can be excluded with electrocardiography and echocardiography. Tests to rule out pulmonary disease include a chest roentgenogram, arterial blood gas determinations, pulmonary function studies, and a lung scan.

In considering whether pulmonary angiography should be routine for patients with pulmonary hypertension, one must weigh the risk this procedure carries for the patient against the information one hopes to gain from the angiogram. Patients with pulmonary hypertension are hemodynamically fragile and are likely to succumb during diagnostic or therapeutic maneuvers. Pulmonary angiography—like pregnancy, anesthesia, surgery, and cardiac catheterization—represents a substantial risk for the patient with pulmonary hypertension. While all of us can cite anecdotal experiences of patients dying during pulmonary angiography, it is difficult to deduce from the literature the precise risk this procedure poses for persons with pulmonary hypertension. All things considered, decisions about pulmonary angiography for patients with pulmonary hypertension should be carefully made, probably on a case-by-case basis.

Effective management of pulmonary hypertension depends first and foremost on an accurate assessment so that appropriate treatment of the primary problem can be initiated. When hypoxemia is present, as it was in the patient we are discussing today, it should be corrected. This patient should have been treated with long-term continuous oxygen. Polycythemia sometimes develops late in the disease and can exacerbate hypoxic pulmonary hypertension; it is therefore to be avoided or, if it develops, treated promptly. Further, anything that increases cardiac output—drugs, exercise, fever, travel to higher altitudes—should be avoided.

There are several pharmacologic approaches to pulmonary hypertension. One of the more promising interventions was affirmed in 1984 by Fuster and coworkers[3] in their retrospective review of Mayo Clinic patients. Seventy-eight patients with primary pulmonary hypertension were treated with oral warfarin anticoagulation within the first twelve months of diagnosis, while 37 patients did not receive an anticoagulant. The investigators noted a significant difference in mortality at three years,

with 46% of those patients receiving an anticoagulant surviving compared to 19% of the untreated patients. Interpretation of this report is difficult because of research design limitations, but the results are nonetheless intriguing. A long-term prospective trial should now be done to establish the efficacy of anticoagulation in improving the survival of patients with primary pulmonary hypertension.

There is a long list of other pharmacologic agents which have been studied as to their effectiveness in the therapy of pulmonary hypertension, including oxygen, acetylcholine, tolazoline, isoproterenol, diazoxide, hydralazine, phentolamine, captopril, verapamil, diltiazem, nifedipine, prostaglandin E_1, prostacyclin, and nitroglycerin. The problem posed by most of these agents is that they act principally on the systemic circulation rather than on the pulmonary circulation. With systemic vasodilation, the left ventricle is unloaded, cardiac output is raised, and the increased flow across the pulmonary circulation either maintains or in some instances elevates further the already above-normal pressure in the pulmonary artery.[5]

There are serious risks involved in administering drugs for pulmonary hypertension. Many of the drugs have been associated with adverse effects, including death, in persons with pulmonary hypertension. For example, isoproterenol, diazoxide, and hydralazine have all been linked frequently in the literature with increased pulmonary arterial pressure in patients with idiopathic pulmonary hypertension, and similar findings have been reported with use of phentolamine, captopril, and indomethacin.

In recent years reports have been issued on use of nifedipine and nitroglycerin to treat pulmonary hypertension. Rubin and colleagues[6] evaluated the effects of nifedipine in six patients who received the drug sublingually in total daily doses of 10-120 mg. Like hydralazine, nifedipine raised cardiac output and reduced calculated pulmonary arteriolar resistance but did not change the absolute mean pulmonary arterial pressure. On the basis of this trial, nifedipine does not appear to offer any advantages over other agents used to treat pulmonary hypertension. In contrast, Pearl and coworkers[7] treated nine patients with idiopathic pulmonary hypertension by administering intravenous nitroglycerin, 24-300 μg per minute. In six of nine patients, the pulmonary arterial pressure fell, and there was also a statistically significant reduction in the absolute pulmonary arterial pressure. The same response was achieved on a chronic basis with topical nitroglycerin paste, between one-half and three-quarters of an inch applied every 4-6 hours. Studies are now needed to determine whether chronic nitrate administration over weeks or months will bring about significant long-term improvement in pulmonary hypertension.

Summary

In summary, pulmonary hypertension is usually far advanced by the time of diagnosis, which is a major reason why patients usually respond so poorly to therapy. Pulmonary blood velocity patterns obtained by a noninvasive Doppler probe may make possible the earlier diagnosis of pulmonary hypertension. A workup for pulmonary hypertension should include a ventilation-perfusion lung scan, but routine pulmonary angiography is not recommended, particularly if the patient will receive anticoagulants regardless of what the angiogram shows. As is suggested by preliminary reports and may be borne out in future prospective studies, long-term anticoagulation should be considered for most patients unless such therapy is specifically contraindicated. Because of the significant risks involved, patients with pulmonary hypertension should receive trials of pharmacologic agents only while being monitored hemodynamically. Finally, hypoxemia in patients with pulmonary hypertension should be corrected with oxygen supplementation.

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ABSTRACTS

These are abstracts of papers to be presented at the 1987 regional meeting of the Virginia Chapter, American College of Physicians, in conjunction with the Virginia Society of Internal Medicine on March 1 in Arlington. Dr. James N. Cooper and Dr. James M. Moss are co-chairmen of the program.

Diabetes Lipidus Associated with Thirst Mechanism Dysfunction. William C. Leskovec, MD, and Herschel E. Estep, MD, *Norfolk.*

Osmoregulation occurs via the hypothalamus and kidney. Neurohypophyseal diabetes insipidus (DI) is a known complication of operations near the hypothalamus. Loss or damage of these neurosecretory cells results in reduced secretion of vasopressin. The diuresis of DI is associated with a low urine osmolarity and specific gravity with a hyperosmolar serum. We describe a method of treatment for DI with thirst impairment using outpatient monitoring of his fluid intake and output and measuring his urine specific gravity with a simple hyrometer. A 29-year-old man who underwent clipping of a berry aneurysm developed postoperative DI associated with a lack in thirst, hypotonic urine and, severe hyperosmolarity of his serum. Treatment with intravenous pitressin and intranasal DDAVP were begun and his serum osmolarity (SO) normalized. He was discharged but returned 5 days later with confusion. SO was 257 mmol/L with a sodium of 117 mEq/L. He had continued to drink fluids despite an absence of thirst. He was placed on water restriction of 1200 cc/day.

Fluid intake and output were rigorously maintained. He was taught to use a hyrometer to monitor urine specific gravity and instructed on how to adjust the dose of DDAV according to the hygrometer measurements. Over a 6-month period he was weaned off DDAVP with maintenance of urine specific gravity at 1.020. Managing this patient in this manner while he was on vasopressin proved effective in maintaining the patient's SO in steady state and preventing serious complications.

Conversion of Rheumatoid Arthritis to SLE Due to D-Penicillamine Therapy. Ray Smith, MD, William Blaylock MD, and John S. Davis IV, MD, *Charlottesville.*

W.B. was a 58-year-old woman with a 10-year history of rheumatoid arthritis; this diagnosis was substantiated by physical exam, X-rays and a strongly positive rheumatoid factor, and in fact fulfilled criteria for classic rheumatoid arthritis. The patient was treated with D-penicillamine, resulting in an 8-month clinical remission; the drug was stopped. When symptoms returned D-penicillamine was restarted. The patient initially improved, but arthralgias and arthritis worsened, prompting increasingly higher doses of D-penicillamine. Six months later the patient developed myalgias, arthralgias, and fever. Laboratory data showed a marked pancytopenia with elevated liver and muscle enzymes. Patient developed new proteinuria, new hematuria and a marked decrease in renal function. The anti-double-stranded DNA was markedly positive. Rheumatoid factor was now negative. The patient's signs and symptoms now fulfilled criteria for SLE. Despite stopping D-penicillamine and institution of high-dose steroids the patient expired due to complications of SLE.

The patient's course is an example of an uncommon yet well described complication of D-penicillamine therapy, namely the conversion of rheumatoid arthritis to systemic lupus erythematous.

Elevated TSH in a Patient with Graves' Disease. Bart Olash, MD, Regina Lemly, MD, and Herschel L. Estep, MD, *Norfolk.*

Graves' disease is a common endocrinopathy. Hyperthyroidism secondary to excess thyroid stimulating hormone (TSH) is rare. We describe a patient with Graves' disease who presented with signs and symptoms of hyperthyroidism as well as unilateral exopthalmos. Laboratory findings included serum thyroxine (T4) of 13.5 μg/dl, free T4 2.4 μg/ml, radioiodine uptake (RAIU) 29% and thyroid-stimulating immunoglobulin of 157% (normal < 130%) of basal activity. Basal TSH levels, however, were elevated on a number of occasions (24 to 28 uIU/ml, normal 0 to 5.5 uIU/ml) and were not significantly reduced by 2 weeks' treatment with 150 μg liothyronine (T3). Injection of 500 μg of thyrotropic-stimulating hormone (TRH) was similarly ineffective in raising serum TSH but prolactin increased from 5 ng/ml to 25 ng/ml at the same time. Bromocriptine mesylate (BM) 5 mg/day for 2 weeks resulted in a fall in TSH to normal (.4 uIU/ml). We conclude that our patient has Graves' disease and

hypothalamically controlled but unsuppressible TSH secretion, a heretofore unreported association.

Nausea and Vomiting with Adrenocortical Insufficiency: Is it Central in Origin or a Gastrointestinal Disturbance? Walter E. Smalley, MD, Gregg A. Valenzuela, MD, and Richard W. McCallum, MD, *Charlottesville*.

Adrenocortical insufficiency has been associated with gastrointestinal symptoms in up to 92% of patients. However, gastric dysmotility has never before been documented. We had a patient who presented with monocular blindness and extremity weakness and was diagnosed as having sarcoidosis with CNS involvement. He completed a course of steroids. He returned 6 months later with anorexia, nausea and later developed vomiting, abdominal pain and weight loss. Evaluation showed normal barium swallow, esophagogastroduodenoscopy and electrolytes without an acidosis. A solid and liquid phase radioisotope gastric emptying study showed delayed emptying of both components. Thyroid functions were slightly below normal and an ACTH stimulation test showed hypofunction with an abnormally low serum ACTH. There was no relief of symptoms with anti-emetics or metoclopramide. However, there was complete resolution of the gastrointestinal symptoms within 24 hours of beginning steroid replacement. Repeat solid gastric emptying one month later was normal and the liquid phase showed marked improvement. This case emphasizes the importance of considering adrenocortical insufficiency when evaluating a patient with nausea and vomiting of unknown etiology. Although a central origin for the gastrointestinal symptoms cannot be excluded, a reversible defect in gastric emptying was demonstrated for the first time in a patient with adrenocortical insufficiency and accompanied the relief of symptoms.

A Case Demonstrating the Potential for Mimicry of Whipple's Disease. Greg S. Pudhorodsy, MD, Joseph J. Burge, MD, and John S. Davis IV, MD, *Charlottesville*.

A 57-year-old white male presented with symptoms of peptic ulcer disease, and this diagnosis was supported by both upper gastrointestinal radiography and endoscopy. His past medical history was significant for a longstanding diagnosis of gout based on recurrent, transient arthritis and hyperuricemia. After the patient was begun on an antipeptic therapeutic regimen he developed severe constitutional symptoms of fever, night sweats and significant weight loss. Computerized tomography revealed periaortic and retroperitoneal adenopathy and a subsequent lymphangiogram was highly suggestive of a lymphoma. At larparotomy multiple enlarged lymph nodes and "tumor studding" of the spleen were noted; microscopic examination of the tissue, however, revealed only non-caseating granulomas. Special stains and cultures did not reveal an infectious etiology. A diagnosis of sarcoidosis was considered and the patient was begun on corticosteroids. After initial improvement the patient had an exacerbation of symptomatology as well as marked thrombocytopenia. A third upper endoscopy was performed; biopsies of the intestinal mucosa revealed infiltration of the lamina propria with PAS positive macrophages. Electromicroscopy showed that the macrophages were laden with bacilliform particles. The patient was begun on antibiotic therapy with resolution of his symptoms.

This case demonstrates the protean manisfestation of a rare clinical entity, Whipple's disease. Over a 10-month period it mimicked the signs and symptoms of gout, peptic ulcer disease, lymphoma and sarcoidosis. It underlines the importance of considering the process in the differential diagnosis of disease with multisystem manifestations.

Malignant Peritoneal Mesothelioma in an 82-Year-Old Male. Ruben L. Mayer, MD, and Richard W. McCallum, MD, *Charlottesville*.

This is of a rare malignancy, infrequently diagnosed in the antemortem state. The diagnosis should be considered in any patient with unexplained ascites, particularly when there is a possibility of asbestos exposure.

The patient was an elderly male admitted for evaluation of weight loss, ascites, and pleural effusion after an extensive workup at an outside hospital. Additional history revealed past employment making steel furniture for ships, which implied asbestos exposure. Physical exam revealed a cachetic white male with decreased breath sounds, marked ascites without hepatosplenomegaly, and guiac positive stools. Labs were significant for a microcytic anemia and normal liver enzymes. Admission chest film showed a left pleural effusion.

The patient was anergic. Computed tomograms of the chest and abdomen showed pleural thickening and ascites. Both thoracentesis and paracentesis revealed exudative fluid with elevated white cell counts, highly atypical cells on cytologic exam, and negative cultures and stains. Upper and lower endoscopy detected no malignancy. Laparoscopy was performed using local anesthesia and IV sedation. It revealed several hepatic nodules and patchy areas

of white exudate on an inflammed peritoneum. Biopsies from the liver and the peritoneum were positive for malignant mesothelioma.

Hyperphosphatemia Due to Hemoperitoneum. Regina Lemly, MD, Bart Olash, MD, and Herschel L. Estep, MD, *Norfolk*.

Hemoperitoneum is a relatively common complication of intra-abdominal disease, but the amount of blood in the abdominal cavity is seldom sufficient to produce changes in circulating electrolytes. Massive bleeding into the peritoneal cavity, however, is an unusual event which is frequently fatal so that secondary effects due to blood breakdown and resorption are not observed. We present a case of massive intra-peritoneal bleeding which was associated with an elevated serum phosphorus (SP). A 51-year-old woman had 3 episodes of loss of consciousness preceeding admission. She had hepatomegaly and obvious abdominal fluid, but no evidence of gastrointestinal blood loss. Abdominal paracentesis at 2 sites produced material with counts identical to that of peripheral blood. Abdominal CAT scan confirmed hemoperitoneum, but an extensive diagnostic workup failed to reveal the site of bleeding. The initial hematocrit of 19% was corrected and maintained at 30% or greater thereafter with transfusions (9 units of packed RBC's over 5 occasions because of a second hemorrhage 7 days after admission). SP was 3.4 mg/dl after initial hydration. Three weeks after the first intraperitoneal hemorrhage, SP rose to a maximum of 5.7 mg/dl (normal 2.5 to 4.4 mg/dl) and gradually fell to normal over 14 days. Serum calcium remained normal and N-terminal PTH was also normal at the time of peak SP concentration. The changes in SP were preceeded by directionally similar changes in serum LDH and indirect bilirubin. An extensive search for other causes of hyperphosphatemia yielded negative results. We conclude that massive hemoperitoneum can and does cause hyperphosphatemia.

Patient with a Spectrum of "Pseudo" Manifestations Due to Calcium Pyrophosphate Deposition (CPPD) Disease. Greg S. Pudhorodsky, MD, Ann K. Henry, MD, and John S. Davis IV, MD, *Charlottesville*.

A 58-year-old white female presented with a 2-week history of tenderness about her left knee preceding the sudden onset of pain and swelling in her left calf. Her past history was remarkable for recurrent pain in her ankles, knees and shoulders; she carried the diagnosis of degenerative arthritis. The clinical impression on presentation was deep venous thrombosis (DVT). Non-invasive vascular studies were supportive of this diagnosis and the patient was begun on systemic anticoagulation. Several days later the patient developed painful effusions of both knees and right ankle pain. Physical examination showed a popliteal cyst on the left. There were no neurologica abnormalities in the lower extremities. Analysis of the knee synovial fluid revealed Type II inflammatory fluid with abundant CPPD crystals. A venogram showed no evidence of DVT while radiographs of the knees showed chondrocalcinosis. X-rays of the ankles showed multiple features consistent with neuropathic joints; previous ankle X-rays established that extreme joint destruction had occurred over the course of just 6 years. Arthrocentesis of the right ankle yielded a serosanguinous fluid also positive for CPPD crystals.

According to the classification proposed by McCarty, this patient demonstrates three patterns of CPPD disease: Type A (pseudo-gout), Type C (pseudo-osteoarthritis) and Type F (pseudo-neuropathic joint). In addition she had pseudo-thrombophlebitis secondary to synovial cyst dissection. We believe this unique case illustrates that CPPD, like gout, may be termed "the great masquerader".

Clinical Utility of Doppler Echocardiography in Mitral Stenosis: Is Catheterization Necessary? Vincent J. Patrone, MD, and Robert S. Gibson, MD, *Charlottesville*.

Ninety-one consecutive patients with rheumatic mitral stenosis (mean age 55±12 yrs) had 2D echo (2DE), pulsed and continuous-wave Doppler (CWD) within 24 hrs of cardiac catheterization. Adequate 2DE and CWD exams were obtained in 85 and 91 patients respectively. Linear regression analysis showed good agreement between cath mitral valve area (MVA) vs 2DE (r=.79) and CWD (r=.87). Among the 51 patients with cath MVA ≤ 1.2 cm^2 who underwent subsequent valve replacement, the standard error of estimate for 2DE was 0.29 cm^2 and for CWD 0.21 cm^2. In only 4 patients did CWD overestimate cath MVA and 2 of these were correctly classified by 2DE. Importantly, pulsed or continuous-wave Doppler identified and accurately assessed the severity of all additional valvular lesions judged significant by cath, including 11 cases of aortic stenosis, 2 cases of tricuspid stenosis and 15 regurgitant lesions of the aortic, mitral or tricuspid valve. Significant CAD ($\geq$50% stenosis) was found in 13 of 81 patients (16%) who had angiography but only 5 (6%) underwent CABG surgery and 4 of these had either angina or prior MI.

We conclude that in patients with mitral stenosis, Doppler echo can accurately assess mitral valve area and the severity of additional valvular lesions. Since the prevalence of significant CAD requiring surgical intervention is low (6% overall; 1.2% in patients without agina or prior MI), cath may not be necessary in the majority of patients.

Temporal Changes in Wall Motion Following Intravenous Streptokinase During Acute Myocardial Infarction. Dale A. Touchstone, MD, George A. Beller, MD, Thomas W. Nygaard, MD, Christine L. Tedesco, RN, and Sanjiv Kaul, MD, *Charlottesville.*

The temporal sequence of changes in wall motion (WM) has not been well characterized in patients undergoing reperfusion therapy with intravenous streptokinase (IVSK). Accordingly, we performed 2D echo examination prior to, immediately, 24 hours, 3 days, 10 days, and 6–8 weeks following IVSK. 2DE data were analyzed for global LV function using a 4-score system (1=normal, 4=severely depressed) and for regional function using a 4-score system (1=normal, 2=hypokinesia, 3=akinesia, 4=dyskinesia) using a 12-segment model. Regional WM improved significantly in 16 of 21 patients with open vessels (76%) and did not improve in any of the 5 patients with closed vessels 2 hours following IVSK (0%) despite subsequent opening of vessels in 3 patients ($p<.01$). The improvement in WM was enough to cause enhancement of global LV function in 8 of the 16 patients (50%). In 13 patients demonstrating improvement in WM (81%) the improvement occurred on day 10; in 2 it occurred on day 3. Only 2 patients showed further improvement in WM on subsequent studies. All 3 patients with severely depressed global LV function had severe stenoses involving both infarct and non-infarct related vessels; two of these patients died.

We conclude that a) improvement in regional WM is common after IVSK; b) global LV function also improves in half of the patients showing improvement in regional WM; c) WM changes are not usually noted within the first 36 hours following IVSK; d) patients who show improvement do so usually by day 10; e) echocardiographic examination within 36 hours and at 10 days following IVSK should identify patients who will improve their regional and global function and those who might die.

Will Diuretics Convert A Transudative Pleural Effusion Into an Exudative Effusion in Congestive Heart Failure? Stephen H. Caldwell, MD, and Simon C. Chakko, MD, *Roanoke-Salem.*

It is believed that diuretic therapy in patients with congestive heart failure will convert a transudative pleural effusion into an exudate based on lactate dehydrogenase and total protein determinations. The finding of a post-diuresis exudative effusion may lead to unnecessary and expensive diagnostic studies.

A 49-year-old white male presented with symptoms and signs of congestive heart failure. Chest roentgenogram revealed cardiomegaly, congestive changes and a right sided pleural effusion. Echocardiogram revealed enlargement of all 4 cardiac chambers and severe biventricular failure. Thoracentesis was done on admission and 9 days later after diuretic therapy, which resulted in 7 kg weight loss. The results of fluid analysis were:

	Admission	Post-Diuresis
Protein		
Fluid (gm/dl)	1.7	2.7
Fluid/Serum Ratio	30%	48%
LDH		
Fluid (U/l)	282	462
Fluid/Serum Ratio	35%	94%

All cultures were negative and the patient improved with diuresis. We conclude that in a patient with congestive heart failure, diuresis may convert a transudative pleural effusion into a exudate. If thoracentesis is planned, it should be done early. This phenomenon deserves further investigation.

Scintigraphic Progression of Coronary Artery Disease After Single-Vessel Acute Myocardial Infarction. William W. Wilson, MD, Robert S. Gibson, MD, Denny D. Watson, PhD, Thomas W. Nygaard, MD, and George A. Beller, MD, *Charlottesville.*

To determine the rate of "functional" progression of coronary artery disease (CAD) in patients with uncomplicated MB-CK confirmed acute MI and single vessel disease (SVD), we evaluated 58 such patients who were consecutively enrolled in an ongoing natural history study of MI and who had had ≥ 2 yrs of followup (F/U). Every patient underwent predischarge coronary angiography and submaximal quantitative exercise thallium-201 scintigraphy (ExT1); all 58 pts returned at 3 mos and yearly thereafter for symptom-limited ExT1. All patients were ≤ 65 yrs of age and 6 had prior MI; 21 had anterior MI; the mean resting LVEF was 51±11%. Mean duration of F/U was 46±13 mos (range 24–60). During F/U, no patient died, only 3 (5%) had recurrent MI and 18 (31%) were hospitalized for Class III-IV angina (AP). In 2 of the 3

patients with recurrent MI, the reinfarction involved the same vascular distribution as the index MI.

Only 4 patients (7%) developed new perfusion abnormalities remote from the index infarct zone (IZ) on yearly F/U ExT1; none had a late ischemic event. Seven had worsening of perfusion in the IZ defined as either new redistribution, new persistent defect, or an ↑ in defect size; one of these had recurrent MI. In contrast, 13 patients (22%) had improvement in IZ perfusion with 3 developing AP.

Thus, at nearly 4 years of mean F/U, the rate of "functional" CAD progression, defined as new ExT1 defects remote from the infarct zone, is low (7%) in patients with uncomplicated MI and SVD. This was associated with no mortality and a low rate of recurrent infarction. These data should be considered when recommending prophylactic revascularization of an infarct-related vessel.

A Prospective Evaluation of Left Ventricular Function and Blood Flow Reserve in Asymptomatic Insulin-Dependent Diabetic Patients. John C. Lystash, MD, Steven Pohl, MD, and Robert S. Gibson, MD, *Charlottesville*.

Eighteen consecutive patients, aged 31±9 yrs (range 21–46), with insulin-dependent diabetes of ≤5 yrs duration (17±8 yrs range 8-34) had quantitative Tl-201 scintigraphy and suprasternal continuous-wave Doppler (CWD) during treadmill exercise (Ex). Left ventricular (LV) ejection phase indices by CWD including peak aortic blood flow velocity (v) and acceleration (dv/dt) were measured every 3 min during and at peak Ex. 2D echo was used to assess regional and global LV function. Five patients had proliferative retinopathy, 2 others had clinical small vessel eye disease, and 4 had nephropathy (>500 mg protein/24 hrs). The mean HbA1c and cholesterol values were 8±3 and 189±42. Six were smokers; 3 had hypertension, none with a diastolic BP >95 mmHg.

At a peak HR and workload of 178±15 bpm, and 12±2 METs respectively, no patient experienced chest pain. Only 2 had ≥1 mm ST seg↓; in both cases, this occurred at peak Ex, resolved within 30 sec, and was associated with a normal BP rise. Of 126 scan segments subjected to quantitative Tl-201 analysis, 125 (99.2%) showed normal radiotracer uptake and washout. No patient had abnormal lung Tl-201 uptake or LV enlargement on post-Ex images. Technically adequate CWD exams were obtained in 17 patients; in 16 (94%), the expected progressive increase in Ex, v and dv/dt was observed when compared to a normal reference range derived from 60 age- and sex-matched non-diabetic normal volunteers. 2DE data revealed LVEF ≥55% in all 18 patients and 197/198 LV segments (99.5%) had normal systolic myocardial thickening.

Thus our data suggest that myocardial involvement and occult CAD in asymptomatic insulin-dependent diabetics is infrequent despite a long disease duration and the presence of microangiopathy. This may be related to a low prevalence of other atherosclerotic risk factors.

Persistent ST Segment Elevation After Uncomplicated Acute Anterior MI; Prevalence and Clinical Significance. John C. Lystash, MD, and Robert S. Gibson, MD, *Charlottesville*.

Ninety-three consecutive patients with MBCK confirmed acute uncomplicated anterior MI underwent study at 10±3 d with 24-hr Holter, radionuclide ventriculography (RVG), exercise (Ex) TL-201 scintigraphy and coronary angio. Q-wave (Q) MI occurred in 61 patients and non-Q-wave (NQ) MI in 32. Persistent ST seg elevation (ST↑) of ≥1 mm in 2 or more anterior (V1-6) leads was found on the day 10 rest ECG in 46 QMI and 11 NQMI pts (74% vs 34%, $p<.05$). Among patients in both groups, the presence vs absence of ST↑ did not identify differences in: Norris index; Lown grade 3-5 PVCs; Ex workload or peak rate-pressure product; Ex angina, ST↓ or TL-201 ischemia; or angio jeopardy scores. In the QMI group, persistent ST↑ correlated with more acute ST↑ ($p=.0001$), higher peak CK levels ($p=.018$), longer time to peak CK ($p<.01$), a higher LAD occlusion rate (78% vs 50%, $p=.55$), lower LVEF (38% vs 47%, $p<.007$), more evidence of scar within the infarct zone by RVG ($p=.001$) or TL-201 criteria ($p<.003$) and a higher incidence of death or CHF requiring treatment with digoxin/furosemide within 3 mos (26% vs 0%, $p<.05$). Similar analysis in NQMI patients revealed only 3 associations: acute ST↑ ($p=.013$), LAD occlusion rate (55% vs 15%, $p<.04$) and fixed TL-201 defects ($p<.04$). At 3 mos followup, more QMI than NQMI pts had persistent ST↑ (53% vs 26%, $p<.05$). QMI patients who continued to show ST↑ on the rest ECG vs those who lost it had higher TL-201 malperfusion scores ($p=.01$), more proximal LAD occlusions (86% vs 47%, $p<.06$) and a lower LVEF ($p=.05$). Thus, ST↑ 10 d after anterior MI is: 1) more common after QMI vs NQMI; 2) resolves in many patients by 3 mos; and 3) correlates with greater LV dysfunction, possibly related to sustained LAD occlusion, and a higher cardiac event rate.

VIRGINIA MEDICAL
EDITORIAL

Ethics—Now More Than Ever

At a time in which medical periodicals abound with such cold terms as health provider, delivery systems, third party payers, health maintenance organizations, and "the business of medicine," and hospitals grapple with vertical integration, market shares and advertising campaigns, it is more important than ever that our profession refocus and reemphasize the importance of the ethics of medicine.

I find it most depressing to find newspapers and magazines touting for-profit hospitals as "a growth industry" and seeing ads for seminar after seminar in which physicians are told they must think like businessmen and capture their market share through advertising and other gimmicks.

Certainly, managing an office—solo practice multi-doctor, or laboratory—must be carried out in a business-like manner. Obviously, we need to know what it costs us to deliver a service, cover our overhead and leave something for us. At the same time, all of this publicity and attention being focused on the business side places greater importance on our devoting even more time to our patients, caring for the less fortunate, and serving our community.

Medicine has been, is, and must continue to be, a public trust—a profession which continues to place the needs and concerns of the individual patient above all else. However, this fact often is overlooked by business people and journalists. They fail to see the distinction between the business side of medicine and the art and ethics of medicine.

A book published in 1985 by Solomon and Kristine, entitled *It's Good Business*, made these five points which I recommend to you:

- Consider the well-being of others.
- Think of yourself and your practice as part of society as a whole.
- Obey moral rules. Moral rules are the heart of ethics and there can be no ethics—and no business—without them.
- Ethics is not only obedience of rules, but also concern for one's own reputation.
- Respect the customs of others, but not at the expense of your own ethics.

Despite today's heavy emphasis on business, our main responsibility continues to be to practice medicine and make the patient our top priority. The patient puts his life in our hands, confides in us the most intimate details, and has higher expectations than ever.

In many ways my feelings on this subject can best be summarized by the Four-Way Test of Rotary International: 1) Is it the truth. 2) Is it fair to all concerned. 3) Will it build good will and better friendship. 4) Will it be beneficial to all concerned.

My concern is not that our profession has lost its ethics, but that we must work harder than ever to emphasize ethics in our daily practice of medicine. When others seek to depersonalize medicine, we must work harder to make certain our patients and the general public are aware that the ideals, values, and trust upon which our profession was founded endures today.

C. Barrie Cook, MD

3300 Gallows Road
Falls Church VA 22046

VIRGINIA MEDICAL OBITUARY

Lawrence Ball, MD

Dr. Lawrence Carter Ball, Roanoke, died January 6, 1986, at the age of 81. A graduate of the Washington University School of Medicine, St. Louis, Dr. Ball trained in Ohio and Maryland. He came to membership in The Medical Society of Virginia through the Roanoke Academy of Medicine and belonged also to the American College of Surgeons and the American Geriatric Society.

H. M. Richardson, MD

Dr. Herman M. Richardson, general practitioner in Midlothian for 54 years before his retirement in 1985, died December 12. He was 80 years old.

A native of Richmond, Dr. Richardson was graduated from the University of Richmond and the Medical College of Virginia, then served his internship at Stuart Circle Hospital in Richmond.

At the time of his retirement the Chesterfield County Board of Supervisors commended him for his medical services in the county and the Virginia State Police made him an honorary captain in recognition of his 42 years as a medical examiner.

Dr. Richardson was a member of the Richmond Academy of Medicine, The Medical Society of Virginia, the American Academy of Family Physicians, and the American Geriatrics Society.

Memoir of J. W. Tankard 1909-1986

By Russell V. Buxton, MD

Dr. James William Tankard, Sr., who was born in Franktown, on the Eastern Shore of Virginia, in September 1909, died on August 25, 1986, in Newport News, where he had practiced surgery for 45 years.

"Tank," as he was known, finished his high school education in Franktown, following which he took his pre-medical work at Washington and Lee University, gaining his degree in 1929. In 1933 he received his MD degree at the University of Pennsylvania and then completed a rotating internship at the now defunct Philadelphia Hospital. He continued in his surgical training at Buffalo General Hospital in New York State and started his practice of surgery in Jenkins, Kentucky. He came to Newport News, where he was an associate of the author at the Elizabeth Buxton Hospital until 1941, when he took over the surgical practice of the late Tony Gentile in Hilton Village, where his office remained.

In 1942 Tank went into military service in the 67th Evacuation Hospital Unit, serving in England and Normandy, then had further surgical training at Massachusetts General Hospital. In 1946 he returned to his surgical practice and remained active until 1975. At that time he terminated hospital surgery, continuing his office work until a few months before his death, when he suffered a massive stroke and spent his remaining days in the hospital.

Tank was married in 1940 to Eileen Looney of Kentucky, and they had three sons, two of whom live in Newport News and the third in Austin, Texas. He was very proud of his family and very close to all of them and enjoyed boating, waterskiing, swimming, traveling and playing gin rummy. He took up snowskiing at the age of 59, but his true love was golf, and he was on the James River Country Club course every week, rain or shine, often with the late Dr. Thomas Lawford or with Robert Tolley, DMV, who was of great help in the writing of this memoir.

Tank was a member of the Newport News Medical Society, The Medical Society of Virginia, and the American Medical Association, American Society of Abdominal Surgeons, Southeastern Surgical Society, and the College of Surgeons and Physicians for Social Responsibility and was a fellow of the American College of Surgeons. During his presidency of the Kiwanis Club of Newport News he was instrumental in establishing the driver training classes of the community's school system. He was active in the Warwick Yacht Club. In his later years he began studying genealogy, becoming a member of the Tidewater Genealogical and the Hampton Historical Societies, and took pride in being a member of the Sons of the American Revolution. He and his family were affiliated with the First United Methodist Church, and he was a long-time member of the surgical staff of Riverside Hospital.

Dr. Tankard will be missed by the medical community and by his many patients and friends.

Memoir of Roy Hargrove 1924-1986

By Dorothy F. Cooney, MD, and Warren X. Collmann, MD

For 32 years of unfailing service to our community, first with our senior surgeon and subsequently himself as our senior surgeon, the staff of Southside Community Hospital is grateful to our colleague and friend, Dr. Roy Belmont Hargrove, Jr., who died on August 30, 1985, at age 60. For the mental acuity, the digital facility, and the diagnostic perception he mastered, we are grateful to the wise and just God who made him, prepared him, directed him, and took him from our midst to higher glory.

Roy served the staff of Southside Community Hospital as committee member, chief, consultant, critic, mentor, and friend. He used his expertise and concern in treating expertly and equally all sexes, ages, races, religions, and creeds to the credit of both gynecological and surgical fields. He proved as "spunky" a patient as he was a physician, fighting the physical battle of his failing heart, returning to his patients, resuming his fight, and dying, as all men would, in the comforting bosom of his family whose unflinching devotion and care surrounded him to his last moments.

The Georgia native was educated at the Citadel in South Carolina and the University of Georgia School of Medicine, interned at the Medical College of Virginia, and completed a surgical residency at the University Hospital, Augusta, Georgia. Due to the fortunate chance that during his internship at MCV he rotated to the Southside Hospital, at which time his wife taught in the local public school system, Roy became enamored of Farmville, and we with him, so that he returned as an associate of Dr. H. B. Holsinger and made this area the recipient and place of his life's work. During his career he was honored with the following achievements: diplomate, American Boards of Surgery; American College of Surgeons; fellow, Southeastern Surgical Congress; diplomate, American Board of Abdominal Surgery; and member, board of managers of Southside Community Hospital.

Exemplifying his special interests beyond the practice of surgery, he was president of the local Lion's Club, president of the Prince Edward School Foundation, founding father of the Wedgewood Country Club, member of the board of directors of First National Bank, president of the Jaycees, and a dedicated deacon of Farmville Baptist Church.

He is survived by his wife, Margaret Ann Heaton Hargrove; two daughters, Katherine Ann Hargrove Andrews, Margaret Elizabeth Hargrove Cochran; one son, Roy Belmont Hargrove III; four granddaughters and three grandsons.

Memoir of Earl Overcash 1900-1985

By Walter E. Deyton, MD

William Earl Overcash, MD, who started the Department of Radiology at the Memorial Hospital in Danville, Virginia, in 1945, died November 16, 1985. He was the first full-time radiologist at the Memorial Hospital and for 18 years was department chairman. He retired in 1964.

Earl was an excellent physician and served his medical staff, hospital and community well. The department he started is now staffed by seven full-time, board-certified radiologists.

Earl was born in Statesville, North Carolina, in 1900. He attended the University of North Carolina at Chapel Hill and received his MD degree from the University of Pennsylvania in Philadelphia. Earl was in the U. S. Army in World War I. After an internship, he specialized in tuberculosis and was medical director of Pinecrest Manor Sanitorium, Southern Pines, North Carolina from 1936 to 1941. In 1941 he obtained specialty training in radiology at Peter Bent Brigham Hospital in Boxton. From 1942 to 1945 Earl practiced radiology in Roanoke, Virginia. After coming to Danville, he started the Memorial Hospital School of Radiologic Technology and for years trained most of the certified radiologic technologists that worked in South Central Virginia.

Earl attended and was a strong supporter of the Church of the Epiphany (Episcopal). He was active in civic affairs and a member of various civic clubs. For hobbies Earl liked to fish and play golf. He spent as much time as possible at his cabin on Buggs Island Lake and made trips to Nags Head and Moorehead City to fish when possible. He especially looked forward to the annual Radiology Department picnic, which he held at his cabin on Buggs Island.

One of Earl's sons followed him in medicine; he is Dr. Kelly E. Overcash, who practices ENT in Danville and continues the tradition of an Overcash on the medical staff of the Memorial Hospital. He is survived also by his wife, two other sons, and numerous grandchildren.

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WHO'S WHO

To **Dr. James M. Moss,** Alexandria, went the Southern Medical Association's Seale Harris Award for 1986, presented annually in recognition of important research in the field of metabolism, endocrinology and nutrition contributing to a better understanding of the chemical changes occurring in disease. A Past President of The Medical Society of Virginia, Dr. Moss is a member of the advisory committee of the Diabetes Research and Training Center at the University of Virginia and the U.S. Pharmacopeia's advisory panel.

Dr. John T. Kaufman, Roanoke, was elected president of the Virginia Dermatological Society during its annual meeting late last year in Williamsburg. **Dr. James W. Patterson,** Richmond, continues as secretary-treasurer.

The first Coach of the Year award of the United States Aquatic Sports Association went to a Richmond family practitioner, **Dr. James W. Miller,** who coaches the statewide Virginia Masters swim team for swimmers 19 years and over and has been meet director at several national swimming championships.

The University of Virginia board of visitors has reelected **Dr. William H. Muller, Jr.,** as vice president for health affairs. Dr. Muller has held the post for ten years.

Dr. Barry T. Katzen, Alexandria, has been elected secretary-treasurer of the Society of Cardiovascular and Interventional Radiology.

A Lynchburg physician has been elected to the Executive Committee of the Virginia Council on Health Regulatory Boards. He is **Dr. G. Edward Calvert,** who is a member of the State Board of Medicine. The council is an advisory body to the State Department of Health Regulatory Boards.

The plastic surgery department of Loknayak Jayprakash Narayan Hospital, a 1600-bed facility in New Delhi, India, benefited recently from the three-week clinical visit of **Dr. Darryl J. Hodgkinson,** Williamsburg, who demonstrated cleft and nasal surgical procedures and muscle flap reconstruction.

Dr. Robert B. Stroube has been appointed deputy commissioner for community health services of the State Department of Health by **Commissioner C. M. G. Buttery.** Dr. Stroube previously was director of the Chesterfield Health District. **Dr. Edwin M. Brown** continues as deputy commissioner in charge of health care services.

New president of the Alexandria Medical Society is **Dr. Pat Tokarz.** Elected to serve with him as secretary was **Dr. William S. Lyons.**

Dr. Lewis Suskiewicz is the newly elected president of the Fairfax County Medical Society, and **Dr. Brantley P. Vitek** is the newly elected secretary.

The Pratt Medical Center in Fredericksburg has a new $2-million wing, and its name honors **Dr. Lloyd F. Moss,** who in the course of 40 years as an internist at the center has doctored several generations of Fredericksburg residents. He has also become "kind of a father figure for the physicians in the community," Thomas A. Girton, the center's director, told a reporter for the *Free Lance-Star.* "They look up to him and seek advice from him." Girton helped organize a surprise ceremony to dedicate the Lloyd F. Moss Wing; dozens of Dr. Moss' colleagues, relatives and friends came to wish him well and to tour the expanded facility.

Dr. Moss was born in Fredericksburg and returned there to join the Pratt Medical Center after schooling at Hampden-Sydney and the Medical College of Virginia, service with the Army Air Corps for four years during World War II, and completion of his training at MCV and Harvard. He has watched the Pratt staff grow from a handful of physicians to 24 doctors representing a variety of specialties. One of them is his son, **Dr. John S. Moss,** an orthopedic surgeon. Another son, Lloyd, Jr., practices dentistry in Fredericksburg.

At 49, **Dr. Robert D. Brickman** has left his cardiac surgery practice in Norfolk and is making his way through the first-year law class at Washington and Lee University. The move was calculated, he told an Associated Press reporter, to avoid the inevitability of eroding skills and retirement.

"I could see that I'm not psychologically suited for retirement," he observed, "and I won't be able to do cardiac surgery technically at some point. The hands and eyes begin to go at 50. You can wear glasses, but you can't compensate for your hands."

He considered and rejected switching to another specialty, then drew on his work as an expert

witness in medical liability cases to decide what new career he wanted to pursue. He figures that if he graduates from law school as expected at age 53, he'll have 20 years or more as a lawyer.

Dr. Brickman did his undergraduate work at Princeton and earned his MD at Johns Hopkins. During training at the University of Pittsburgh he linked up with **Dr. Crile Crisler, Jr.,** who became his medical partner in Norfolk but who declined Dr. Brickman's invitation to continue the partnership at law.

Dr. L. Benjamin Sheppard has given up the Richmond office he has occupied since 1935 and is retiring from active practice. His office was in a downtown landmark, the former Medical Arts Building (now Linden Tower Professional Centre), and at 80 years, the lively ophthalmologist is something of a landmark himself. He was instrumental in founding the Richmond Eye Hospital, and as both glaucoma specialist and medical historian, his authorship has contributed enduringly to the literature.

Born in Glen Allen, Virginia, Dr. Sheppard was graduated from the University of Virginia School of Medicine in 1930, interned at the Medical College of Virginia, and trained at Manhattan EET Hospital in New York.

The first physician in Virginia to limit his practice to plastic surgery, **Dr. Leroy Smith** of Richmond, has put that practice on semi-retirement status, but he'll continue full steam ahead on his work at Children's Hospital in Richmond, where he has corrected facial deformities for about 6,000 children during his 50-year medical career and done it all for no pay. That work, he told Beverly Orndorff of the *Richmond Times-Dispatch*, is his "first love," challenged only by his work with Virginia's Board of Rehabilitative Services, of which he is chairman.

As for his private practice, Dr. Smith will do some consulting work and see "some old patients I've had over the years," he said, but he will no longer be performing hospital surgery.

Dr. Smith grew up in Richmond's historic Church Hill district, attended the University of Richmond, was graduated from the Medical College of Virginia, Class of 1936, and continued at MCV for his training under the late Dr. J. Shelton Horsley, Jr., general and plastic surgeon, with whom he later worked at St. Elizabeth's Hospital.

With a ceremonial shovelful of dirt, Mrs. Victor N. Guerrero, Manassas, plants the dogwood tree won by the Medical Society of Virginia Auxiliary in a membership challenge from the North Carolina Auxiliary as Executive Vice President Jim Moore holds the sapling in place. They were photographed on the lawn at MSV headquarters in Richmond. Mrs. Guerrero was membership chairman and Mrs. Clyde W. Vick, Jr., president during the contest. *Photograph by Cyane Lowden*

VIRGINIA MEDICAL CLASSIFIED

Virginia Medical classified ads accepted at the discretion of the Editor. Rates to Medical Society of Virginia members: $15 per insertion up to 50 words, 25¢ each additional word. To non-members: $30 per insertion up to 50 words, 25¢ each additional word. Deadline: 5th day of month prior to month of publication. Send to the Advertising Manager, 4205 Dover Road, Richmond VA 23221.

PRACTICE FOR SALE in Hampton, established with gross income over $120,000. Includes opportunity to lease or purchase building. Terms available. Contact Joseph H. Latchum, Jr., 729 Thimble Shoals Blvd., Suite 105, Newport News VA 23606, (804) 873-1881.

GENERAL SURGEON needed immediately for multispecialty surgical group in Southwest Virginia. Need graduate of US medical school with board certification (or eligible). Excellent fringe benefits and practice conditions. Reply to Virginia Medical, Box 020, 4205 Dover Road, Richmond VA 23221.

FOR SALE—Toshiba copier with table. Four years old and in excellent condition. Uses regular and legal-size paper; makes 2-sided copies. Call Dr. McAllister, (804) 321-2453.

PUBLIC HEALTH Clinician B needed in the Norfolk Health Department family planning/women's health programs. Board certified (or eligible). Salary, $50,000 range. Fringe benefits include health and liability insurance, continuing education, vacation and holidays. Submit Virginia state application by 02/27/87 to Public Health Clinician B/ #3296, Virginia Department of Health, Room 110, James Madison Building, 109 Governor St., Richmond VA 23219, (804) 786-3309. EOE.

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PHYSICIAN—Treatment center in Lynchburg is seeking a physician to work in an Urgent Care Center. Excellent for family living. Competitive benefits and salary. Contact C. M. Suttenfield, MD, PO Box 4538, Lynchburg VA 24502; (804) 237-5979.

EMERGENCY DEPARTMENT positions in coastal and mountain regions of Virginia. Excellent support staff in progressive hospital system. Malpractice insurance provided. Contact Emergency Consultants, Inc., One Windemere Place, Room 40, Petoskey MI 49770; 1-800-253-7092.

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LABORATORY EQUIPMENT—Ames Seralyzer with all modules and pipettes; like new, $2500; B and L Monocular microscope; Nuclear Chicago Geiger Counter; National Rigid Sigmoidoscope. Call (804) 288-3001.

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ER or FP PHYSICIAN needed to complete group covering Emergency Department and Urgent Care in scenic and historic Gloucester County. Must be board certified or eligible in ER or FP. Partnership available. Please send CV to Gaylord W. Ray, MD, Mobjack Emergency Medicine Associates, Walter Reed Memorial Hospital, Gloucester VA 23061, (804) 693-4400.

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HOLTER RECORDERS—Holter monitor service recorders provided for physicians' offices at no charge with a minimum of five recordings per month. For more information concerning this service, please call (804) 359-9265 or toll free in Virginia 1-800-468-1030. Charles L. Baird, Jr., MD, Director, Virginia Heart Institute.

VIRGINIA MEDICAL

The Award Winning Publication of The Medical Society of Virginia

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MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

THE UNEVEN COURSE OF TORT REFORM

As Virginia's legislators neared the end of the General Assembly's short 1987 session, the fate of tort reform hung in the balance, with pivotal measures still pingponging from one hearing to another, from this committee to that subcommittee.

Two of the three bills sponsored by The Medical Society of Virginia seemed headed for passage--SB 665, introduced by Sen. Clarence A. Holland, which would protect from suit physicians who administer vaccines, and SB 618, introduced by Sen. James P. Jones, which would mitigate the Joint Underwriting Association's heavy dip into policy-holders' pockets. Thanks to the impassioned support of its patron, Del. Clifton A. Woodrum, and a heavy flow of letters from physicians, the seminal Injured Infants Compensation Act passed the House, was reported out of Senate committee with but one dissenting vote, and seemed likely to pass, too; this bill would take birth-related neurological cases out of the courts and into a system modelled after workers' compensation.

Picked to win from the recommendations of Sen. William F. Parkerson's study committee, Assembly watchers told Va Med's reporter, were shorter statute of limitations on cases involving minors. Of doubtful prognosis were the study committee's recommendations for a cap on non-economic damages, limits on pain-and-suffering awards, and Good Samaritan protection for obstetricians. All hands forecast continuance of the Parkerson committee, which would keep tort reform very much alive at the 1988 session.

COUNCIL ORDERS REVIEW OVERSIGHT, AIDS FUNDING

With praise for its comprehensive appraisal of the Medical Society of Virginia Review Organization (Va Med 1987;114:39-41), the Society's Council at its meeting in January transformed the MSVRO Study Committee into the MSVRO Oversight Committee to function as "an advocate of the physician." MSV President Richard L. Fields, who conducted the Council meeting, reappointed as chairman Dr. William H. Sipe, Newport News, and as members these six

HAVE YOU HAD A FREE LUNCH LATELY?

Some people still believe there is such a thing. For example, the majority of physicians practicing in Virginia depend on a small percentage of their colleagues to represent them in politics. Virginia physicians know that in the past VaMPAC has been able to get along without them, and they assume that this will always be true.

Medicine is starting to lose a war of attrition! We are finding it increasingly difficult to compete with the thousands of associations and political action committees organized during the past several years. Paramedical groups are becoming increasingly influential in state politics and are beginning to surpass our medical PAC in campaign contributions. VaMPAC is simply not growing fast enough and it is losing its ability to hold politicians accountable for "bad votes". The only solution is a bigger and better-funded PAC. Unless VaMPAC can grow and keep up with the competition, that "free lunch" is going to cost more than you want to pay.

Please make personal checks payable to VaMPAC.

Voluntary political contributions are not limited to the suggested amount. VaMPAC will not favor or disadvantage anyone based on the amounts or failure to make contributions. Contributions are subject to Federal Election Commission regulations.

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LETTERS

Was it the gun under the mattress?

The following case is probably an unusual reaction in rather unusual circumstances to mace, which is phenylchlormethylketone, a highly purified form of tear gas commonly known as CN.

M.W., a 37-year-old white female, 102 lbs., 5 ft. 2 in., presented to me on 1/28/86 complaining of "sinus congestion." This consisted of a tight feeling about her nose and eyes accompanied by a post-nasal drip and frequent headache. Examination revealed a post nasal drip, red nasal membranes and sinuses that were clear on transillumination. Since there was nothing on her exam to suggest any other problem, kerosene fumes from a recently installed stove were considered to be the culprit. A nasal mist with 3 cc of dioctyl sodium sulfasuccinate was ordered qid.

The patient returned on 2/11/86 with the same complaint and now her eyes were congested and painful. Again the nasal mucosa was very red, moderately swollen and showed no other signs of infection. Her conjunctiva were mildly irritated with diluted and obvious capillary swelling and redness. There was no limbal edema. She had two palpable anterior cervical nodes in her right neck. Her sinuses were again clear to transillumination. She was not sneezing and the symptoms were constant rather than episodic. It was known that she had a younger brother with many seasonal allergies, but this knowledge did not seem to fit her problem. It was noted for the first time that she had a probable exophthalmos.

On 2/21/86 an ophthalmologist observed her and agreed that she had a slight exopthalmos. At that time a thyroid profile was done and reported as T4:10.8 mg./dl, T3:uptake 43%, free T4 index:4.6, and T3, radio-immuno assay:132. Her weight at that time was 108, BP 118/70 and heart rate 72 per minute.

She was not seen again until 3/7/86 when she returned with complaints about her eyes burning, hurting and tearing and no medicine that she had been using in her eyes had helped. Her eyes now had a stare appearance. Again she was asked about house insulation, chemicals, appetite change, etc. She responded with, "Do you suppose it could be the mace that I keep under my mattress?" Further conversation revealed that she had been keeping a mace gun under her mattress since 11/10/85. When she turned the mattress in March 1986 she noticed the mace apparatus was only half full, although she had not used it. She was instructed to remove the gun and place it in her garage, vacuum her mattress, and report back in 72 hours. I did not hear from her until 4/25/86, when she returned because of an obvious upper respiratory infection. She reported her eye symptoms were less, and she had complied with my request regarding the mace. Her eyes continued to slowly resolve but never completely cleared. The stare continued and also some irritation. On 7/31/86 she returned and requested referral to another ophthalmologist as well as an endocrinologist. The endocrinologist, who had been in practice for 40 years plus, was unable to confirm any evidence of thyroid disease, and he had no alternative to offer for her exopthalmia. Her second ophthalmology consultant agreed with the exopthalmia but had no other explanation than that she was hyperthyroid. However, thyroid studies were within normal limits.

In summary, this is an incidence of a young white female who slept with a leaking mace gun under her mattress three to four months, who developed eye problems which simulate thyroid disease, and who was not proven to have any eye disease other than that which could be explained on the basis of thyroid disfunction. Six to eight months after removing the exposure to mace her exopthalmia seemed to be regressing. It may be that chronic exposure to mace over an extended period of time can produce an exopthalmos suggesting thyroid disease.

Harold W. Felton, MD

PO Box 10
Deltaville VA 23043

He sees HMOs "not only surviving, but thriving"

We appreciate the attention give to health maintenance organizations in VIRGINIA MEDICAL's November 1986 issue[1] and particularly to their continuing growth, both locally and nationally. You have captured well many of the changes going on and the importance for everyone concerned—patients, physicians, employers and insurers—to re-

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main committed to quality care.

The exceptional quality of American medical services need not be compromised by any changes in the delivery system and must not be. And they have not been, despite several implications to the contrary by author/attorney Grad. His suggestion that HMOs have "created a financial system not to render care" is unfair to the doctors he represents. Testimony comes not from HMOs but from the American Medical Association itself. Dr. James Todd, a senior officer there, recently wrote, "I don't have any patience with the attitude of physicians who say they can't deliver quality care to contract plans. Any physicians who adhere to good, solid ethical care will do well in whatever setting they decide [to practice in]."

The simple fact is that the quality of HMO care is constantly evaluated by consumer groups, medical societies and by HMO quality assurance committees. Without high medical marks, HMOs cannot survive, regardless of cost savings. And they are, as your articles show, not only surviving but thriving. That is really good medical news for America.

David Metz

President, Capital Care, Inc.
1235 Jefferson Davis Highway
Arlington VA 22202

1. Grad JD. Coping with the gatekeeper. Va Med 1986;113:657-658

Anatomical diagnosis of back pain

Recently, I heard a description of back pain that I had never heard before. I was called to see a professor of anatomy because of sudden onset of acute back pain, very severe in nature. When I asked him to describe the back pain he stated, "It feels like I have pain in my celiac plexus." This could only be described by someone with knowledge of anatomy. A diagnosis of a kidney stone ureal was established. He was treated for this and one week later passed the stone.

This is probably the most specific description of a kidney stone pain that I have heard.

Arthur A. Kirk, MD

3300 High Street
Portsmouth VA 23707

In mild to moderate hypertension Brief Summary

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CONTRAINDICATIONS: 1) Severe left ventricular dysfunction (see WARNINGS), 2) Hypotension (less than 90 mmHg systolic pressure) or cardiogenic shock, 3) Sick sinus syndrome or 2nd or 3rd degree AV block (except in patients with a functioning artificial ventricular pacemaker).

WARNINGS: Heart Failure: ISOPTIN should be avoided in patients with severe left ventricular dysfunction (see DRUG INTERACTIONS). Patients with milder ventricular dysfunction should, if possible, be controlled before verapamil treatment. Hypotension: ISOPTIN (verapamil HCl) may produce occasional symptomatic hypotension. Elevated Liver Enzymes: Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Periodic monitoring of liver function in patients receiving verapamil is therefore prudent. Accessory Bypass Tract (Wolff-Parkinson-White): Patients with paroxysmal and/or chronic atrial flutter or atrial fibrillation and a coexisting accessory AV pathway have developed increased antegrade conduction across the accessory pathway producing a very rapid ventricular response or ventricular fibrillation after receiving intravenous verapamil. While this has not been reported with oral verapamil, it should be considered a potential risk. Treatment is usually D.C.-cardioversion. Atrioventricular Block: The effect of verapamil on AV conduction and the SA node may cause asymptomatic 1st degree AV block and transient bradycardia. Higher degrees of AV block, while infrequent (0.8%), may require a reduction in dosage or, in rare instances, discontinuation of verapamil HCl. Patients with Hypertrophic Cardiomyopathy (IHSS): Although verapamil has been used in the therapy of patients with IHSS, severe cardiovascular decompensation and death have been noted in this patient population.

PRECAUTIONS: Impaired Hepatic or Renal Function: Verapamil is highly metabolized by the liver with about 70% of an administered dose excreted in the urine. In patients with impaired hepatic or renal function verapamil should be administered cautiously and the patients monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacological effects (see OVERDOSAGE).

Drug Interactions: Beta Blockers: Concomitant use of ISOPTIN and oral beta-adrenergic blocking agents may be beneficial in certain patients with chronic stable angina or hypertension, but available information is not sufficient to predict with confidence the effects of concurrent treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities. Digitalis: Clinical use of verapamil in digitalized patients has shown the combination to be well tolerated if digoxin doses are properly adjusted. However, chronic verapamil treatment increases serum digoxin levels by 50 to 75% during the first week of therapy and this can result in digitalis toxicity. Upon discontinuation of ISOPTIN (verapamil HCl), the patient should be reassessed to avoid underdigitalization. Antihypertensive Agents: Verapamil administered concomitantly with oral antihypertensive agents (e.g., vasodilators, angiotensin-converting enzyme inhibitors, diuretics, beta blockers, prazosin) will usually have an additive effect on lowering blood pressure. Patients receiving these combinations should be appropriately monitored. Disopyramide: Disopyramide should not be administered within 48 hours before or 24 hours after verapamil administration. Quinidine: In patients with hypertrophic cardiomyopathy (IHSS), concomitant use of verapamil and quinidine resulted in significant hypotension. There has been a report of increased quinidine levels during verapamil therapy. Nitrates: The pharmacologic profile of verapamil and nitrates as well as clinical experience suggest beneficial interactions. Cimetidine: Two clinical trials have shown a lack of significant verapamil interaction with cimetidine. A third study showed cimetidine reduced verapamil clearance and increased elimination to 1/2. Anesthetic Agents: Verapamil may potentiate the activity of neuromuscular blocking agents and inhalation anesthetics. Carbamazepine: Verapamil may increase carbamazepine concentrations during combined therapy. Rifampin: Therapy with rifampin may markedly reduce oral verapamil bioavailability. Lithium: Verapamil may lower lithium levels in patient on chronic oral lithium therapy. Carcinogenesis, Mutagenesis, Impairment of Fertility: There was no evidence of a carcinogenic potential of verapamil administered to rats for two years. Verapamil was not mutagenic in the Ames test. Studies in female rats did not show impaired fertility. Effects on male fertility have not been determined. Pregnancy (Category C): There are no adequate and well-controlled studies in pregnant women. ISOPTIN crosses the placental barrier and can be detected in umbilical vein blood at delivery. This drug should be used during pregnancy, labor, and delivery, only if clearly needed. Nursing Mothers: ISOPTIN is excreted in human milk, therefore, nursing should be discontinued while verapamil is administered. Pediatric Use: Safety and efficacy of ISOPTIN in children below the age of 18 years have not been established.

ADVERSE REACTIONS: Constipation 8.4%, dizziness 3.5%, nausea 2.7%, hypotension 2.5%, edema 2.1%, headache 1.9%, CHF/pulmonary edema 1.8%, fatigue 1.7%, bradycardia 1.4%, 3° AV block 0.8%, flushing 0.1%, elevated liver enzymes (see WARNINGS). The following reactions, reported in less than 1.0% of patients, occurred under conditions (open trials, marketing experience) where a causal relationship is uncertain; they are mentioned to alert the physician to a possible relationship: angina pectoris, arthralgia and rash, AV block, blurred vision, cerebrovascular accident, chest pain, claudication, confusion, diarrhea, dry mouth, dyspnea, ecchymosis or bruising, equilibrium disorders, exanthema, gastrointestinal distress, gingival hyperplasia, gynecomastia, hair loss, hyperkeratosis, impotence, increased urination, insomnia, macules, muscle cramps, myocardial infarction, palpitations, paresthesia, psychotic symptoms, purpura (vasculitis), shakiness, somnolence, spotty menstruation, sweating, syncope, urticaria. Treatment of Acute Cardiovascular Adverse Reactions: Whenever severe hypotension or complete AV block occur following oral administration of verapamil, the appropriate emergency measures should be applied immediately, e.g., intravenously administered isoproterenol HCl, levarterenol bitartrate, atropine (all in the usual doses), or calcium gluconate (10% solution). If further support is necessary, inotropic agents (dopamine or dobutamine) may be administered. Actual treatment and dosage should depend on the severity and the clinical situation and the judgment and experience of the treating physician.

OVERDOSAGE: Treatment of overdosage should be supportive. Beta-adrenergic stimulation or parenteral administration of calcium solutions may increase calcium ion flux across the slow channel, and have been used effectively in treatment of deliberate overdosage with verapamil. Clinically significant hypotensive reactions or fixed high degree AV block should be treated with vasopressor agents or cardiac pacing, respectively. Asystole should be handled by the usual measures including cardiopulmonary resuscitation.

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MORE MEETINGS

Continued from page 137

Virginia), *Williamsburg*. Fee: $325. Kathy Martin, (804) 786-0494.

May 14-17
Annual Meeting of the Virginia Society of Ophthalmology, (cosponsored by Georgetown University), *Tysons Corner*. Donna Strawderman, (804) 353-2721.

May 18-19
14th Annual Hans Berger Day and EEG Symposium (Medical College of Virginia), *Richmond*. Fee: $250. Kathy Martin, (804) 786-0494.

May 19
5th Annual Ethics Seminar: Informed Consent in Clinical Practice (Fairfax Hospital), *Falls Church*. Beverly Mizanty, (703) 698-2572.

May 23-25
Gynecologic Urology and Pelvic Surgery (Medical College of Virginia), *Williamsburg*. Fee: $260. Kathy Martin, (804) 786-0494.

May 28-30
Postgraduate Course in Basic and Advanced Colposcopy and Laser (American College of Obstetricians/Gynecologists), *Norfolk*. Robin Murray, (202) 638-557, ext. 343.

June 3-7
11th Annual Postgraduate Course on Rehabilitation of the Brain-Injured Patient (Medical College of Virginia), *Williamsburg*. Fee: $285. Kathy Martin, (804) 786-0494.

July 17-19
Practical Internal Medicine: Selected Topics for the Internist (Medical College of Virginia), *Virginia Beach*. Fee: $295. Kathy Martin, (804) 786-0494.

June 25-27
2nd National Conference on Cancer Prevention and Detection (American Cancer Society), *Seattle, Washington*. 15 credit hrs. Fee: $200. (212) 736-3030.

July 12-15
Reconstructive and Aesthetic Oculoplastic Surgery (Eastern Virginia Medical School), *Williamsburg*. Fee: $300. James H. Carraway, MD, (804) 623-1090.

July 31-August 2
9th Annual Pediatric Primary Care Conference: Pediatrics at the Beach (Medical College of Virginia), *Virginia Beach*. Fee: $275. Office of CME, (804) 786-0494.

VIRGINIA MEDICAL
MARCH 1987

Gustavus Richard Brown Horner, a Commodore and His Chronicle

Anthony G. Spencer, JD, *New York, New York*

Heir to a long medical tradition, Gustavus Horner added luster to the family record as Medical Director of the United States Navy, author of travel books and medical texts, and hygienist who advocated ice to prevent food spoilage and charcoal filters to purify water. In retirement, he was the master of the home his father built, Carter Hall in Warrenton.

COMMODORE Gustavus Richard Brown Horner is the most versatile of Virginia's many seagoing physicians. Others achieved higher rank and fame—Rear Admirals Presley Rixey and Lamont Pugh were Surgeons General of the United States Navy—but none approached the Renaissance character of G. R. B. Horner.

The Horners of Warrenton, Virginia, have a long medical tradition, as do their close relatives, the Browns. Gustavus Brown, G. R. B. Horner's great uncle, attended George Washington in his last illness and another uncle, Gustavus Brown Horner, treated Lafayette's wounds at the Battle of Brandywine. William Edmonds Horner, G. R. B.'s elder brother and one of the first doctors to use the microscope in daily practice, founded St. Joseph's hospital in Philadelphia; he became professor of anatomy at the University of Pennsylvania School of Medicine and described the muscle controlling the flow of tears through the nasolacrimal duct, subsequently known as the "musculus Horneri".

G. R. B. Horner was born to William and Mary Edmonds Horner in Warrenton on 17 June 1804. After receiving his primary education in Fauquier County, Virginia, he enrolled in the University of Pennsylvania School of Medicine in 1822 under the eye of his anatomist brother. On 24 May 1826 he was awarded his medical degree and began a habit he was to continue almost daily for the next 66 years: in a small leather-bound journal he wrote, "May 24th 1826 passed the Board of Examiners. Philadelphia." Two days later, he received his commission as a surgeon's mate in the United States Navy, and was ordered to report for duty on board the U. S. Frigate *Macedonian* at Norfolk, Virginia. After his first day at sea he wrote, "The sea rough and covered with foam, seasickness begins. When preparing to get into my berth, seeing

This paper is an abridgement of a talk delivered at the Mid-Atlantic Maritime History Conference at the University of Richmond in September 1980.

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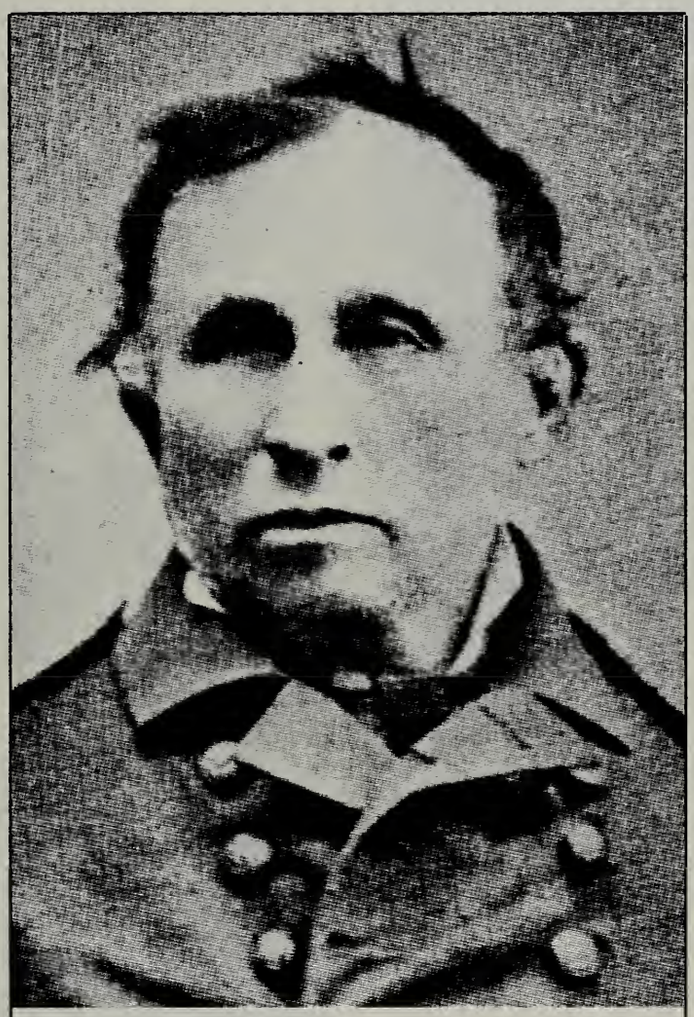
a piece of cracker, I kicked the odious object from my sight." Horner's 22nd birthday came after a week at sea, and although he had recovered from his seasickness enough to eat "plentifully of salt beef and sea biscuit", he added that he hoped "Most sincerely to celebrate my next birthday in Fauquier C. Va. by drinking a Mint Julep before breakfast & by masticating a Slice of Bacon."

Horner spent eight of the next ten years at sea; from June 1826 to November 1828 he served with the Brazil squadron, followed by a year's study at the University of Pennsylvania. After a further year with the home squadron, he was promoted to surgeon on 4 April 1831 and transferred to the Mediterranean squadron, sailing on the Frigate *United States* and the Sloops *John Adams* and *Levant*. During his seven years in the Mediterranean, Horner, always a student of wide interests, sketched and painted land and seascapes, and gathered curios and scientific samples in abundance. Despite the exotic attractions of sand from the Sahara and Oriental tea leaves, he was delighted to return home on 16 November 1838, noting that he was "Heartedly sick of wandering, I pray heaven never more to take me from my native country, and that I might never again see another foot of foreign soil." His enforced travels, however, resulted in two books: *Medical and Topographical Observations upon the Mediterranean; and upon Portugal, Spain, and Other Countries* in 1839, *and Medical Topography of Brazil and Uruguay: with Incidental Remarks* in 1845.

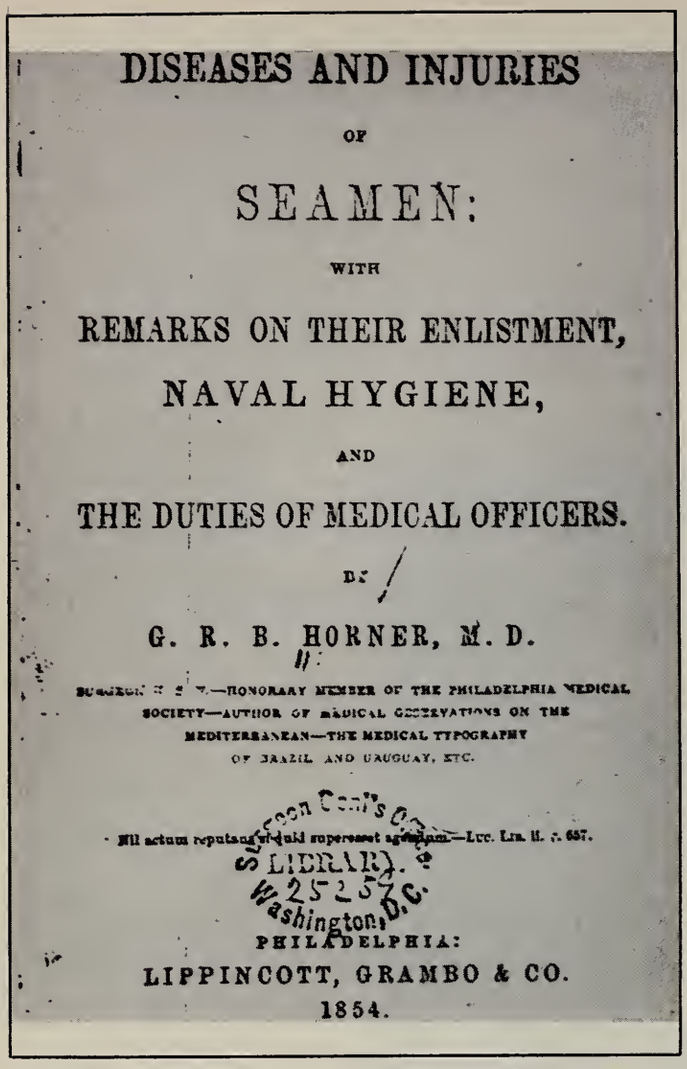


GUSTAVUS RICHARD BROWN HORNER, MD

When not at sea, Horner was usually stationed at the navy yard in Philadelphia and, as an honorary member of the Philadelphia Medical Society, he built an extensive private practice when not on duty. Apparently a sociable bachelor, he wrote often of parties attended and people visited. In 1841 he was posted as Fleet Surgeon to the Brazil squadron and, two years later, rejoined the Mediterranean squadron. Returning to Philadelphia in 1844, he remained there for the next five years before becoming Fleet Surgeon to the Pacific squadron, with which he rounded Cape Horn in the Frigate *Savannah*. At that time, stories of sailors finding gold in California were rife, and Horner was eager to see this fabled land. On first sight he must have been disillusioned—he saw "a vast quantity of guano, or bird dung" on the rocks of San Francisco Bay; once on land, however, he arranged to buy $300 worth of gold dust and visited a gold mine with a lawyer friend, where he was pleased to see the Sabbath regularly observed.

After one year in the Pacific, Horner again returned to Philadelphia for six years of shore duty and private practice. It was during this time that he wrote what became the definitive naval medical text of its time—*Diseases and Injuries of Seamen: with Remarks on their Enlistment, Naval Hygiene, and the Duties of Medical Officers*, published in 1854. In his introduction, Horner emphasized that doctors at sea should write down their observations in the hope of discovering methods of prevention and cure, a technique well proven by James Lind and scurvy. In addition, he stressed that naval physicians must fulfill the duties of both the doctor dedicated to the well-being of his crew and the naval officer responsible for discipline and order.

While Horner was at the Philadelphia navy yard he had to examine sailors and candidates for the Navy, a duty he discussed in depth in his book. He rejected as unfit some 10% of the approximately 2,000 applicants he examined, including some whose "foetid exhalations given off by the breath or feet" would "corrupt the air" on board ship. He was always watchful for faked disabilities in sailors



DISEASES AND INJURIES

OF

SEAMEN:

WITH

REMARKS ON THEIR ENLISTMENT,

NAVAL HYGIENE,

AND

THE DUTIES OF MEDICAL OFFICERS.

BY

G. R. B. HORNER, M. D.

SURGEON U. S. N.—HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY—AUTHOR OF MEDICAL OBSERVATIONS ON THE MEDITERRANEAN—THE MEDICAL TYPOGRAPHY OF BRAZIL AND URUGUAY, ETC.

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1854.

with time to serve and told the story of one seaman who, having feigned lameness on board ship, was declared disabled and discharged. "A boat took him ashore, and no sooner had it touched the beach than he leaped on land, jumped into the air with joy and exultation, made a most insulting exclamation and gesture at the boat's crew, and ran into town as actively as any man in the ship could have done."

As a naval hygienist, Horner advocated the use of ice, preservatives, and hermetically sealed containers to prevent food spoilage and recommended the use of charcoal filters to purify water. In constructing ships, he suggested, living quarters should be well-ventilated, that there should be a large hatch above the sick bay through which the wounded could be lowered in battle, that the medicine storeroom should adjoin the sick bay, and that the sick bay in steam frigates should be located away from the heat of the engine room.

In 1856, Horner rejoined the Brazil squadron on the Frigate *Wabash*, one of the ships sent to capture Gen. William Walker. Walker was a Nashville physician-lawyer who, with 56 renegades, had taken over the government of Nicaragua in 1855, an action greeted with approval by many Americans but not by the United States Congress. In early December 1857, Walker was cornered in San Juan del Norte, a small town in eastern Nicaragua. Horner and several shipmates were sent ashore to order Walker to surrender or suffer the consequences of forcible apprehension. Walker procrastinated and, on the morning of 8 December, Horner prayed "that our expedition against Walker's lawless band might be bloodless but successful." Answering Horner's prayer, Walker surrendered in time and was taken back to the United States, where he was released. Horner celebrated this happy conclusion to an exciting adventure by marrying Mary Agnes Theresa Byrne on 11 November 1858; within two years the Horners had a boy, Alfred Byrne, and a girl, Emma Byrne.

On 6 November 1860 Horner entered in his journal, "Election of the President—City very quiet"; within months, his family was caught up in the Civil War and a second cousin, John Quincy Marr, a captain in the Warrenton Rifles, was the first Confederate to fall in battle. In the North, Southerners were treated badly. Horner's brother, Alfred, who was living in Philadelphia, was forced to fly a U. S. flag from his window; Henrietta Horner, a visiting cousin from Virginia was not allowed to return home for the duration of the war, despite an appeal to Secretary of State William Seward, who told her, "I am very sorry, Miss Horner, but your family living in and around Warrenton are a large influential family, and every male member in the Confederate Army." Miss Horner, enraged, replied, "Yes, that is so, and if there were one who was not, that one would I disown." If she had been

true to her word, Henrietta would have had to disown her brother Frederick and her cousin G. R. B. Horner, both of whom were serving involuntarily in the Union Navy.

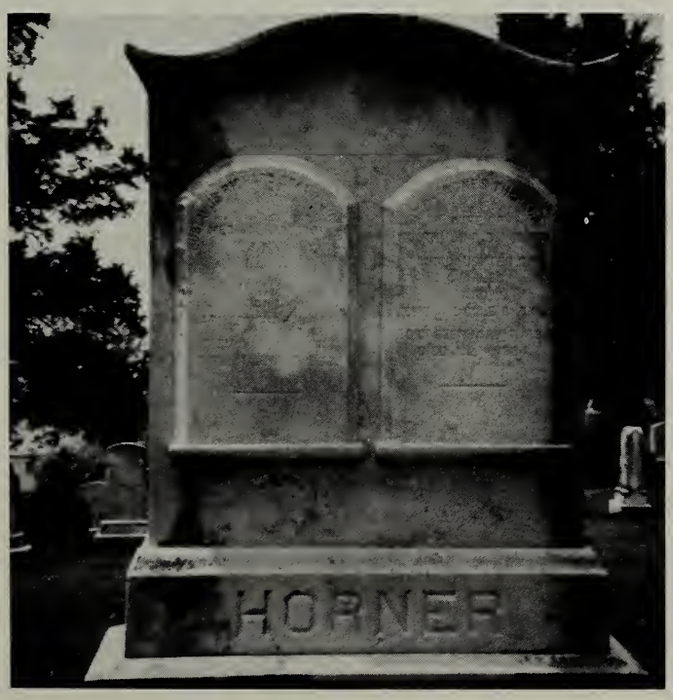
At the war's outbreak, Horner was ordered aboard the Steam Frigate *Colorado* and served with the Gulf Blockading squadron for two and a half years, rarely being allowed ashore in case he joined the Confederates. In 1863 he returned to Philadelphia and spent the remainder of the war there with his family, often receiving the sad news of friends and relatives killed or captured by Union troops. On 3 June 1864 a daughter, Josephine Edmonds, was born, but she died early in 1865.

WITHIN a year of the war's end, Horner retired to Warrenton to live and practice in Carter Hall, which he bought from his brother, Inman, one of the transactions whereby Horner obtained most of the property his father had divided among his children. In today's Warrenton, this land is bounded by Horner Street.

Horner settled down happily in his beloved Fauquier County and on 22 July 1869, a second son, Charles Gustavus, was born. Two years later, Horner was named Medical Director of the United States Navy on the retired list, which brought with it the rank of Commodore. He continued his journal in his retirement, noting on the first day of April 1880 that "My wife Mary A. T. Horner and our three children Emeline B., Alfred B., and Charles Gustavus Horner, aged 20, 18, and 10 and some months, were with me and in good health." As he grew older, his handwriting became less decipherable; the entries of his last few months are so illegible that it is hard to imagine that Horner himself could have read them. In one of his last readable entries, he wrote on 17 June 1891, "Today I was 87 years old in good health . . . thanks to God."

Carter Hall, Warrenton

Horner's wife died in 1884 and on 4 August 1892, sensing his approaching death, he dictated his final will and testament, bequeathing his property in equal shares to his three children and stating, "I desire to be buried by the side of my wife after payment of all debts and funeral expenses." Four days later he died. His will was executed to the letter, an act which would have been pleasing to his exacting and observant nature.



Gravestone of Horner and his wife

Eikenella Corrodens Cervical Osteomyelitis: Case Report

David Peereboom, MD
and Donald M. Poretz, MD
Falls Church, Virginia

THE important pathogen *Eikenella corrodens* is infrequently recognized. This facultative anaerobe and capnophilic gram-negative rod is often found in the oronasopharynx as well as other mucosal surfaces.[1] Several reports have documented this organism in human bite infections,[2] in bacteremias following tooth extractions,[3] and in osteomyelitis following mandibular and facial fractures.[4–6] We report a case of *Eikenella corrodens* osteomyelitis of the cervical spine following transoral surgery.

Case Report

A 63-year-old diabetic man was admitted to the hospital complaining of increasing hoarseness and dysphagia of eight weeks' duration. Evaluation included lateral cervical spine roentgenograms which showed a mass compressing the pharynx. The mass, thought to be a tumor, was resected through a transoral approach, but at the time of surgery a 3 × 3 cm osteophyte without evidence of neoplasm or infection was encountered. The patient was placed on prophylactic cephalexin and was discharged from the hospital free of symptoms on the third postoperative day. Over the next three weeks he noted increasing neck pain and complained of a "sore throat". Four weeks after discharge he developed "spasms." Cervical spine x-rays were normal and he was placed in a collar with some relief of the pain. Soon thereafter he developed severe neck pain radiating to the back of his head and was readmited to the hospital when he developed a right-sided hemiplegia and a left-hemianesthesia.

At the time of readmission, his temperature was 98.5°F, pulse was 88, and respirations 16. Blood pressure was 190/95. He appeared acutely ill. Examination of the throat revealed a healing posterior midline scare without swelling or drainage. Movement of his neck elicited pain and diffuse tenderness to palpation. On neurological examination a left hemianesthesia to the level of the C3 dermatome was present. Vibration sensation was absent in the lower extremities. Motor strength was markedly diminished on the right but deep tendon reflexes were present.

Laboratory examination showed a white blood cell count of 12,300/mm^3 and a platelet count of 523,000/mm^3. Serum glucose was 357 mg/dl. Blood cultures were sterile. A radiograph of the cervical spine showed osteolysis of the third cervical vertebral body and the superior portion of the fourth cervical body with destruction of the intervening disc (Fig. 1). myelogram showed a block at the C4 level. Computerized tomography revealed bone and disc destruction and a ventral extradural mass consistent with an abscess (Fig. 2).

Because the patient was allergic to penicillin, he was begun on intravenous clindamycin, 900 mg every 8 hours. Cervical laminectomy was performed and a ventral epidural abscess was encountered and drained. A halo collar was put in place. By the third hospital day the patient regained left-sided sensation, but right-sided weakness persisted. The surgical specimen grew a pure culture of *Eikenella corrodens*, and the antibiotic was changed to intravenous cefoxitin, 3 gm every 6 hours. On the sixth hospital day a repeat CT scan revealed persistence of the abscess and the patient was reoperated upon with additional drainage of purulent material. He was maintained on intravenous cefoxitin for a total of six weeks and his strength gradually improved.

Discussion

This case illustrates osteomyelitis and disc space infection secondary to *Eikenella corrodens* follow-in transoral surgery. *Eikenella* has previously been reported as a pathogen in orally contaminated wounds such as human bites, mandibular osteomyelitis, and several other infections.[1–6] We are not aware of any other cases of vertebral osteomyelitis associated with *Eikenella*.

Eikenella corrodens is infrequently identified for several reasons. Infections with this organism are indolent, typically requiring several weeks before diagnosis.[7] In this case, diagnosis was made approximately six weeks after initial inoculation. In addition, this fastidious organism may not be de-

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Submitted 7-17-86.

Table 1. Minimum Inhibitory Concentrations (μg/ml) of the Present Isolate.

Penicillin G	1.0	Clindamycin	>7.5
Ampicillin	3.75	Cefoxitin	0.2
Cephalothin	15.0	Cefoperazone	6.25
Tetracycline	0.5	Ceftriaxone	0.1
Erythromycin	0.2	Ceftazidime	0.1
Chloramphenicol	1.9		

tected if not cultured properly. Material from any site potentially contaminated with oral pathogens should include both aerobic and anaerobic cultures.[8] In addition, growth is often quite slow, with colonies often requiring 48 hours or more before the typical "corroding" colonies are visible.

Most infectious complications of oropharyngeal surgery involve various types of aerobic and anaerobic streptococci, other anaerobic bacteria, and *Staphylococcus aureus*. The drug of choice for these organisms is usually penicillin or a penicillinase-resistant penicillin.[9] Since this patient was allergic to penicillin, he was eventually treated with cefoxitin. Of 24 strains of *Eikenella corrodens* studied by Goldstein, only two were susceptible to cephalexin and none were susceptible to clindamycin, the antibiotics on which this patient was placed initially.[10] *Eikenella*, therefore, has a susceptibility pattern which differs markedly from that of other pathogens in orally contaminated wounds.

Eikenella is quite susceptible to penicillin G or ampicillin, and it appears that cefoxitin is quite active against this organism. The newer cephalosporins are variable in their activity, erythromycin seems to be consistently active, and the aminoglycosides are relatively inactive against *Eikenella*. Of significance is the uniform resistance to clindamycin. The minimum inhibitory concentrations (MICs) of the present isolate are noted in Table 1.

Fig. 1. Lateral cervical spine film of osteolysis and disc destruction (arrow) at C3-C4 level.

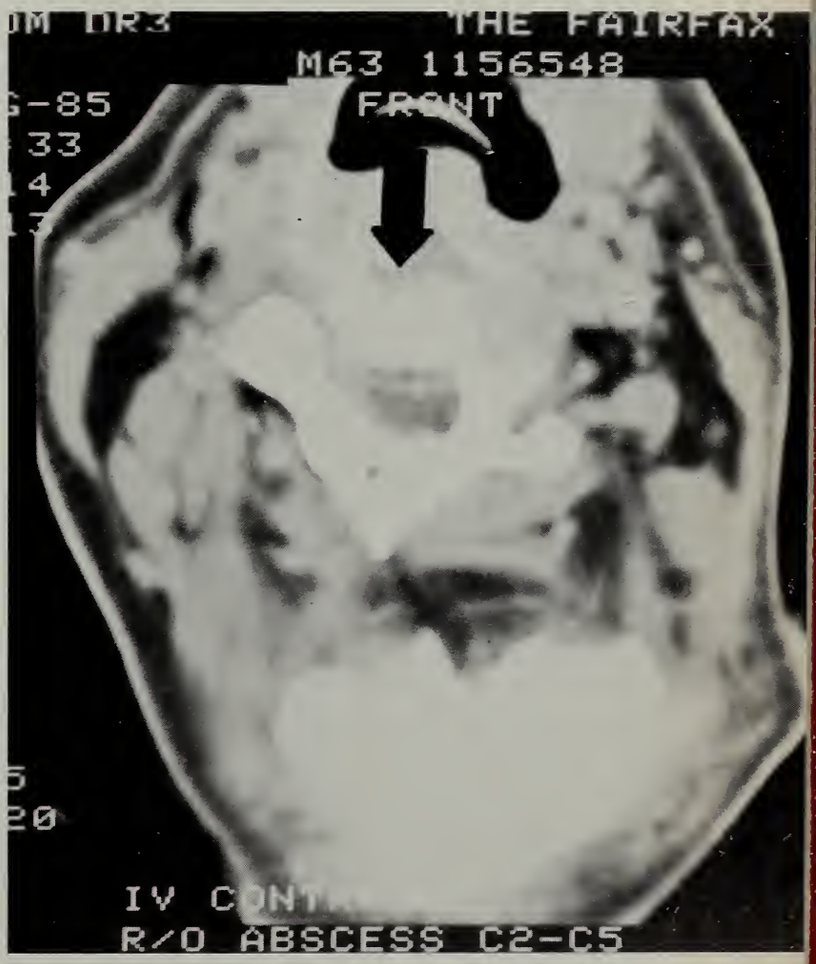

Fig. 2. CT scan at C3 showing vertebral body osteomyelitis and epidural abscess (arrow).

Summary

A previously unreported site for a *Eikenella corrodens* infection is presented. This organism should be suspected in any orally contaminated wound because it is a fastidious anaerobe that may not be identified if not cultured properly. Of importance is the fact that this organism demonstrates unusual antibiotic sensitivity patterns different from other oral bacteria.

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ANNALS OF MEDICINE

Chickens Unlocked Lymphocyte Mystery

Elam Toone, MD, *Richmond, Virginia*

In many inquiries among my colleagues, I find that a great number are unaware of the events which projected the lymphocyte into its role as a major component of our immune mechanism. This should not be considered too unusual since the initial article implicating the lymphocyte in our immune mechanism appeared in *Poultry Science* in 1956.[1] Moreover, an authoritative hematology textbook stated in 1941[2] that the function of leukocytes generally was poorly understood and that the function of lymphocytes even less so.

In 1954, this situation began to clarify. The bursa of Fabricius was first described by Hieronymus Fabricius some 300 years ago, but its function had never been understood. Bruce Glick and Timothy Chang were graduate students in the School of Veterinary Medicine at the Ohio State University, and their project was to determine the function of the bursa of Fabricius. Quoting Bruce Glick:[3]

Up to the summer of 1954, experiments had failed to reveal a specific function for the bursa. At this time, nine of my six-month-old experimental birds were used by Timothy S. Chang, a fellow graduate student, in a routine class demonstration. This consisted of injecting the chickens with Salmonella typhimurium antigen and then determining the antibody titer of the serum. Six of the birds died immediately after the injection. To our surprise, the sera of the three surviving birds produced no agglutination when mixed with the homologous antigen. The wing band numbers of each fowl was then carefully checked with our record books and revealed that all nine birds previously had the bursa of Fabricius resected.

Normal pen mates were then injected with the same antigen and reacted by producing normal antibody titers. These studies were followed by extended experiments using many chickens and conclusively showed that where the bursa of Fabricius had been removed, the fowl failed to produce an antibody to the Salmonella typhimurium, whereas those birds with the bursa intact produced normal antibody titers.

This led to the conclusion that the major organ of immunologic competence in the chicken was the bursa of Fabricius.

These findings took on a much greater significance when they were related to work being done on the thymus. Dr. Robert Good and coworkers at the University of Minnesota had become interested in the thymus after observing a patient with a thymoma and agammaglobulinemia (1953). Quoting Dr. Good in 1962:[3]

At about the same time as we were carrying on early experiments on the effect of thymectomy on the development of the immunologic capacity, Glick, Chang et al published a series of reports describing the effect of neonatal bursectomy (Fabricius) on subsequent antibody production of chickens. The bursa of Fabricius is a lymphoid organ of the chicken which histologically bears some similarity to the thymus.

These findings on bursectomized chickens (the marked diminution of antibody response) prompted us to extend our investigations on the thymus and,

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For more on Dr. Toone, see page 163.

in particular, to study the effects of neonatal thymectomy on the subsequent development of immunological capacity.

On the basis of these studies, it was concluded that rabbits thymectomized in the neonatal period showed a reduced but variable antibody response as a result of peripherization of lymphocytes and the effectiveness of the antigen. Similar studies on mice showed a regularly predictable deficiency of the immunologic system.

Thus observations made during the course of a routine class demonstration (not a research exercise) on chickens later found to have been bursectomized at the Veterinary School of the Ohio State University were reported in *Poultry Science*. This led to studies on neonatal thymectomized rabbits and mice at the University of Minnesota School of Medicine, which were reported in the *Journal of Clinical Investigation*.[4]

These complimentary studies in turn led to the detection of the vast immunologic capabilities of the lymphocyte with its awesome one-two punch, the B (bursa) and T (thymus) cells.[5]

The author acknowledges with thanks the helpful suggestions of Dr. G. Watson James and the use of his textbook.

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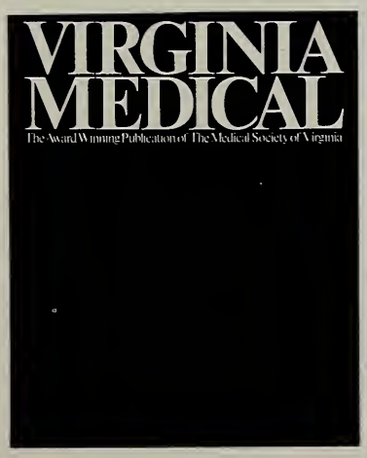

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Operative Treatment of Distal Hypospadias: Review of 34 Cases

Glenn H. Shepard, MD
William H. Sipe, MD
and William J. Dierberg, MD,
Newport News, Virginia

HYPOSPADIAS is a congenital deformity occurring sporadically in approximately one in 300 male births. It is associated with undescended testes and renal anomalies. The hallmark of hypospadias is the abnormal location of the urethral meatus, which is ventral and proximal to its normal position. It may be located at any point from the corona to the perineum. In severe cases, the sex of the individual may be unclear.

Associated with hypospadias is an abnormally shaped penis. The distal tip of the penis usually has a ventral curvature caused by chordee. Chordee is a dense band of fibrous tissue extending from the abnormal meatus to the glans and replacing the usual corpus spongiousum, dartos fascia and Buck's fascia. This curvature, combined with the flattened glans and deficient ventral foreskin, makes the dorsal foreskin appear to be unusually long and gives the penis its classic "hooded" appearance. A bifid scrotum will result if the abnormal meatus is in the area of the scrotum or on the perineum.

The less severe distal type of hypospadias, with the urethral meatus situated near the coronal sulcus, is regarded by many physicians as a defect not requiring surgical correction. With this relatively minor degree of congenital deformity, an individual has the capability of procreative functions and micturition in the standing position. In addition, noticeable degrees of chordee are generally not present. The relief of physician and parent that the defect is not more severe serves to justify inattention to the problem, but the individual with the defect may view the problem differently.

Our interviews with four young men (12, 14, 15 and 17 years) with uncorrected distal hypospadias indicated their problems. Two difficulties were observed by all boys. The first was the irregularity of the urinary stream. With forceful voiding, the urine projected forward and sprayed from the ventral surface of the glans. This frequently caused soiling of the clothing. Targeting of the urine into a standard commode was difficult. By consciously diminishing the force of voiding, the stream was more readily controlled, but then the downward projection of the urine was accompanied by dripping of the urine from the ventral aspect of the glans. The second problem was one of psychological adjustment. Each had been told by his parents that a problem existed. This was reinforced by comments from schoolmates. All reacted by seeking complete privacy when voiding.

One of the greatest deterrents to surgical referral by the primary care physicians is older reports indicating fistula formation, flap necrosis and meatal stricture. With the availability of modern surgical techniques, these complications have been largely eliminated. Surgery for distal hypospadias can now be accomplished with minimal morbidity. We successfully repaired a series of 34 patients with distal hypospadias, demonstrating the safety and effectiveness of operative treatment of this defect.

Materials and Methods

Thirty-four boys ages 3 to 17 years with distal hypospadias were operatively treated. Excluded from surgery were individuals with a urinary meatus present on the distal aspect of the glans.

The procedures were all performed under a general anesthetic, generally lasting 1-1½ hours. Initially, posterior urethrostomy was performed. Diversion by Foley catheter was not used. A modification of the repair described by Mustarde was used in all these cases (Figs. 1-6).[1] Ice packs were used for 48 hours. Antibiotics were continued for five days. At ten days the perineal catheter and the urethral stent were removed, and the patient was discharged on that day.

All patients have been followed a minimum of one year. Two instances of minor meatal stenosis were observed, requiring dilatation alone in one case and dilatation with meatotomy in the second. Cosmetic removal of redundant foreskin was additionally performed as a secondary procedure after 12 months. A normal urinary stream was observed in 32 patients within six weeks of surgery (Fig. 7). In the other two in whom distal stricture developed, a normal stream was present after correction. Complications of hematoma, flap slough, urinary tract

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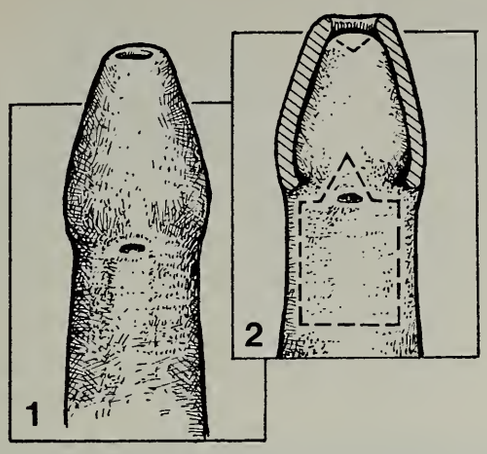
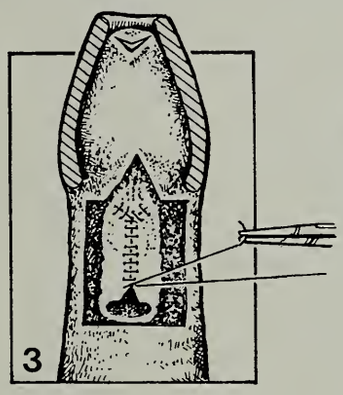
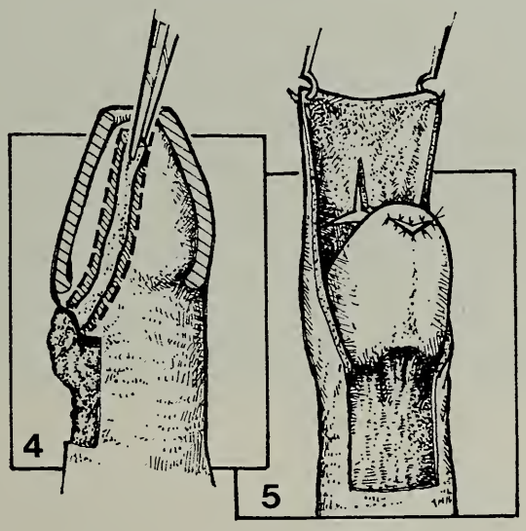
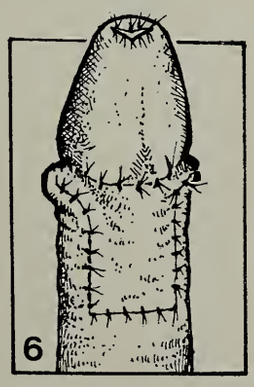


1. Abnormal meatus of distal hypospadias. 2. Incisions for repair outlined. 3. Creation of skin tunnel to be distal urine conduit.







4. Skin tube passed distally through glans to form meatus. 5. Foreskin flap created to cover ventral skin deficit. 6. Foreskin flap sutured in place.

Fig. 7. Postoperative photograph.

infection, and fistula formation were not observed. There were no anesthetic complications.

Discussion

Two physicians in our state, Dr. Charles E. Horton and Dr. Charles Devine of Norfolk, are pioneers in the field of surgery for hypospadius.[2] They have greatly enhanced our understanding of the deformity and developed operations for its correction.

The need for surgery in the more proximal hypospadias has been well recognized. The necessity of surgical correction justified the high complication and failure rate in earlier years. Surgical advances in the past ten years have focused attention on the previously ignored distal hypospadias. The great reduction in complications is largely due to the availability of fine suture material, fine instrumentation, and magnification. The advances have allowed greater attention to the precision required in closing so delicate a defect. The enlargement of the operative field by magnification eliminates some of the former pitfalls involved in approximating a skin tube usually measuring 3 to 5 millimeters in diameter. Although the possibility of complication has not been completely eliminated, the anticipated success of surgery far outweighs the risk at this time.

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Pulmonary Foreign Body Granulomatosis: Case Report

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FOREIGN body granulomatosis (FBG) as a result of intravenous abuse of certain oral medications has long been recognized.[1] The primary lesions are foreign body granuloma formation and angiothrombosis of pulmonary arterioles induced by embolisation of the filling and binding agents used in oral preparations of drugs. Talc (magnesium silicate) has historically been the most important etiology.[2] However, cellulose, principally from intravenous abuse of pentazocaine, is currently a major cause of FBG.[3] Pulmonary function abnormalities are common, but the frequent occurrence of significant pulmonary hypertension and sudden death has recently become clear.[3,4] Radiographically, as many as half of patients may show diffuse tiny nodular pulmonary opacities.[2,5] Because of the prognostic implications, FBG must be considered when this radiographic pattern is encountered.

This report describes the typical radiographic findings in intravenous pentazocaine abuse and reviews the pertinent clinical associations.

Case Report

A 38-year-old male drug abuser, incarcerated for many years, had a routine chest radiograph showing a diffuse fine pulmonary nodular pattern; two years previously a routine radiograph had been quite normal (Figs. 1 and 2). He admitted to long-term intravenous abuse of pentazocaine, but was reluctant to divulge the quantity of tablets involved. He had occasionally used other drugs, including heroin. He had been hospitalized once for hand ischemia due to inadvertent brachial arterial pentazocaine injection, resulting in the subsequent amputation of two fingers. He was currently asymptomatic without dyspnea or cough. Pulmonary function studies were refused. He was counseled on the potential hazards of continued intravenous pentazocaine abuse.

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Discussion

Although heroin is the favorite "mainline" drug of narcotic addicts, a variety of less expensive oral medications are also used intravenously (Table 1). Such oral narcotic preparations are commonly combined with an antihistamine to decrease the nausea produced by intravenous use. There is apparently considerable geographic variation in the favorite combinations. Currently an increasingly popular mixture is pentazocaine and tripelennamine, or "Ts and Bs." "Blue velvet," a mixture of paregoric (opium, benzoic acid, camphor, anise oil) and tripelennamine, is often preferred. Addicts, especially those on methadone maintenance, experience sedation and may use stimulants to counteract this effect

Pathologic Features.[2-4,6-9] Cornstarch, talc, and microcrystalline cellulose are commonly used in oral tablets to improve texture and to prevent sticking to dies and molds. They are found in most abused oral products and may be readily differenti-

Table 1. Oral Drugs Commonly Used Intravenously.

ANALGESIC	Cellulose	Talc	Cornstarch
Narcotic			
methadone (Dolophine®, Lilly)	+	+	+
codeine/aspirin (Lilly)	+		+
oxycodone (Roxane)	+		
meperidine (Demerol®, Demerol-APAP, Winthrop-Breon)		+	+
dilaudid		+	
Non-Narcotic			
propoxyphene napsylate (Darvocet N®-100, Lilly)	+		
pentazocaine (Talwin®, Winthrop-Breon)	+		+
HYPNOTIC			
phenobarbital (Lilly)	+		+
secobarbital (Seconal Pulvules®, Lilly)			+
ANTIHISTAMINE			
tripelannamine PBZ®, Ciba-Geigy)		+	
STIMULANTS			
amphetamine		+	+
methylphenidate (Ritalin®, Ciba)		+	
phenmetrazine (Preludin®, Boehringer-Ingelheim)			+

Fig. 1A, above. Normal chest radiograph two years previously. 1B, below. Lung clear in enlarged view of right costophrenic sulcus.

Fig. 2A, above. Lungs have hazy, granular appearance. 2B, below. Diffuse small nodular pattern in enlarged view of right costophrenic sulcus.

ated. Both talc and cellulose are optically active on polarized light microscopy, but the birefringent crystals of cellulose are larger than talc and show the histochemical staining characteristics of a carbohydrate. Cellulose will also stain with Congo red. Starch granules show a distinctive birefringent pattern resembling a Maltese cross. Talc has a typical x-ray diffraction pattern. Injected intravenously, all three produce pulmonary arteriolar angiothrombosis, but only cellulose and talc produce a foreign body granuloma reaction. Both lesions are found in the clinical syndrome of FBG. Thrombosis of pulmonary arterioles is produced by direct intravenous embolisation of injected starch, cellulose, and talc. Although angiothrombosis may be extensive, pulmonary infarction is infrequent. Pulmonary hypertension may uncommonly result from direct starch embolisation and angiothrombosis alone without foreign body granuloma formation.

Cellulose and talc cause both embolic angiothrombosis and foreign body granuloma formation. The granulomas may be primarily vascular and perivascular, or interstitial. The predominant location of the granulomas seems to depend on the amount of cellulose and talc injected: short duration of addiction may be associated with vascular and perivascular granulomas, and long-term addiction with interstitial granulomas. The vascular lesions are associated with right ventricular hypertrophy (RVH) or the morphologic features of pulmonary

hypertension in most patients. The interstitial lesions generally lead to pulmonary fibrosis. Both cellulose and talc produce an active alveolitis. The smaller talc particles lodge predominantly in the pulmonary arteriolar bed, but may be found in retinal arterioles or venules, and may be evident on ophthalmoscopic examination. The larger cellulose particles may cause granuloma formation in the right ventricular endocardium and large elastic pulmonary arteries, but apparently may also be evident in the retinal vessels. Inadvertent arterial injection may lead to peripheral digital ischemia as in the present patient.

Clinical/Laboratory Features.[2-5,10-11] Dyspnea is the most common complaint of FBG (50%), but sudden death attributed to pulmonary hypertension (cor pulmonale) is increasingly reported. Most patients are young (average age 30 years) and smoke cigarettes. Physical examination is usually normal except "needle tracks" (100%) and retinal emboli on funduscopy (30%-60%). Most patients show a predominant diffusion abnormality on pulmonary function testing, but a component of obstruction is often present. Elevated angiotensin converting enzyme is almost always present in FBG from cellulose, as is positive ^{67}Ga imaging of the lungs. Immunologic profiles are characteristically normal. Pulmonary hypertension in patients with FBG has been well documented in vivo at cardiac catheterization.

Radiographic Features.[2-5,7,12] About half of patients have an abnormal chest radiograph with a fine micronodular pattern, as in the present case (Fig. 2A). Occasionally the marked upper-lobe volume loss and the coalescent opacities of progressive massive fibrosis may occur. Although the radiographic changes in general reflect the severity of FBG, widespread pathologic lesions may be present with a normal radiograph. The development of the micronodular pattern may be quite rapid, but FBG may be far advanced pathologically before the chest radiograph shows micronodular changes. Radiographic evidence of cardiomegaly or pulmonary hypertension on plain films (enlarged main PA, enlarged hila) or angiography (loss of fine branching) may be present before the typical pulmonary micronodular pattern appears.

Conclusion

The development of a micronodular pattern on the chest radiograph of an addict or suspected addict should raise the possibility of FBG. As in the present case, this may indicate access to drugs during incarceration. As noted, the majority of autopsies on patients with FBG show the anatomic criteria of RVH or pulmonary hypertension, and cardiac catherization has confirmed this finding in vivo. Since sudden death in these patients is a distinct possibility, it is important to recognize the typical radiographic features of FBG so that the continued intravenous exposure to cellulose or talc might be curtailed.

The author thanks Mickie Moser, Robert Guanci, and Robert Hawk for their assistance in the preparation of this article.

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The Treatment of Asthma

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ASTHMA is described as reversible obstructive airway disease. The reversibility may be partial or complete. The etiology of asthma includes allergy, infection, chronic irritation by smoke or industrial fumes, sinusitis, nasal polyps, certain fungi and idiopathic causes. The mediators causing asthma, regardless of the inciting cause, are thought to come from mast cells (possibly from basophiles and pulmonary macrophages).

Treatment of asthma should consist of elimination of etiologic factors, symptomatic therapy and the suppression of the release of mast cell mediators. The mast cell is a tissue cell that has been incriminated as a cell that releases mediators which cause the allergic tissue response. In the lung, the mast cell is located around venules, in the mucosa, and in submocosal tissue.[1]

The mast cell is the stage for IgE, the allergic antibody, i.e., IgE is attached to the mast cell by the Fc portion of the antibody. The mast cell can be triggered to release its mediators by the linkage of adjacent IgE molecules by antigens and also by such varying agents as C3a, C5a, eosinophilic major basic protein, enzymes, drugs and physical stimuli.[2]

When the mast cell is triggered, mediators are released which are capable of causing asthma and tissue damage. These mediators can be preformed in the mast cell or generated when the mast cell is perturbed. Some of these mediators and their tissue responses are:[2]

Preformed mediators: 1) Histamine produces smooth muscle contractions, vascular permeability and edema (histamine challenge to the sensitive lung produces asthma). 2) Neutral proteases have tryptic activity similar to that of pancreatic trypsin (could destroy normal connective tissue by digestion of the peptide core proteoglycans).

Generated mediators (oxidative products of arachidonic acid metabolism): 1) Hydroxyeicosatetraenoic acid (HEETs) and leukotrienes are thought to be involved in mucus secretion in the lungs.[3] 2) Leukotrienes B_4, C_4, D_4 and E_4. LTB_4 is a powerful chemotactic agent for eosinophils, neutrophiles and monocytes with the release of potentially toxic mediators (eosinophilic major basic protein and neutrophilic lysosomal enzyme). SRS-A (LTC_4 and LTE_4), the low-reacting substance of anaphylaxis, is the most potent vasoactive and spasmogenic mediator known. SRS-A is 100 times more active than histamine in causing the wheal and flare reaction, the wheal lasting 2-_4 hours and the flare 6-8 hours. LTC_4 causes arteriolar constriction. 3) PgD_2 also causes wheal and flare reactions lasting two hours. Different prostoglandins have different pulmonary responses. 4) Thromboxanes appear to block the effect of PgE on cyclic AMP.

Inhalant challenges with specific allergens cause immediate and late asthmatic responses in the sensitive patient. Hyperirritability of the lungs, following such a challenge, can last 70-90 days.[4]

Age is no deterrent to the development of allergic disease. Poison ivy, insect allergies, and drug allergies can occur at any age. In like manner, the common allergic conditions, asthma and rhinitis, can come at any time of life. IgE antibodies to inhaled antigens are present in the majority of asthmatics (66-87%).[5] The relevance of these tests has been demonstrated by production of asthma in bronchial challenges with these antigens.[6]

Treatment

There are two approaches to the treatment of asthma: 1) symptomatic treatment alone and 2) specific treatment along with symptomatic therapy.

Symptomatic treatment alone is satisfactory for conditions when there is no known specific effective therapy for the condition being treated. When etiology is known and mechanism of production of disease is understood and when specific effective treatment is available, symptomatic therapy alone is inadequate.

Physicians usually treat asthma with varying combinations of beta-2 stimulants, theophylline preparations and corticosteroids. They often ask the patient to stop smoking and they treat infection when present. Too often they forget to treat the allergic component of asthma and overlook the suppression of mast cell mediators.

Allergic management includes the avoidance of allergens, including inhalants, foods, drugs, and, where indicated, immunotherapy. Immunotherapy has proved successful where a single antigen, such as bee venom, is involved. Asthma is not usually caused by a single antigen, but immunotherapy can

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POINT OF VIEW

Accountable in Any System

PERHAPS it is time for physicians to stop berating those forms of health care delivery, other than fee-for-service, under the guise of poor quality and denial of appropriate care. Regardless of the mode of health care delivery, access, cost of care and quality are the overriding issues of concern. The issue of quality receives the most attention from physicians when criticizing alternative delivery systems. No one, not even those heavily involved in cost management, are interested in producing inferior quality in medical care. High on the list of priorities for discussion by the participants in a recent conference, Corporate Health management '86, sponsored by the Illinois Chamber of Commerce in Chicago were methods of ensuring high quality care in any health care delivery system. This seems to be a sincere commitment by the business community.

Vituperative arguments against those systems which are at variance with the traditional private practice mold generally point to inferior quality. Forgotten is the fact that our traditional system has some problems, too. It has been frequently inaccessible to those without the means or to those who live an inconvenient distance from needed care. The "competition" inherent in it not only quietly restricts cooperation but occasionally results in malpractice actions. It costs too much. And we cannot always take pride in its quality.

Dr. John A. Owen, Jr., made a powerful case in this journal against physicians receiving bonuses (higher incomes) for cost-saving activities.[1] An article in the Wall Street Journal condemns health maintenance organizations specifically and prepaid care in general for similar activities.[2]

The temptations offered in the sharing of higher incomes by facilities for which physicians work seemingly is too great to withstand. Physicians, it is claimed, will admit patients to hospitals and discharge them, by design, prior to the exhaustion of funds allowed by prospective payments. They will skimp on care. Most certainly, if patient care is altered by physicians who share in savings by rendering *less* than needed care, the practice must be condemned. These arguments are well made. The dangers of these temptations are real. The trouble is, in condemnations of temptations, only part of the problem is considered.

If we assume physicians' behavior in the care of patients will be altered by cash bonuses for rendering less (cost-saving) care, why have we not assumed (or why have we for years ignored) the alteration of behavior in order to receive higher incomes by rendering more (costly) car? There are orthopedic surgeons who obtain x-rays in their offices for indications that are less than compelling. There are internists who are directors of respiratory therapy units, from which they derive income, who order considerably more therapy than their counterparts. There are laboratories in physicians' offices which are used when there is no significant clinical reason to do so. There are procedures in all fields of surgery which are performed for dubious reasons and indications. Benefits have been heaped upon high volume "admitters" by hospital administrators and boards.

These things take place. I have seen them, and so have you.

It is frequently suggested that standard peer and utilization studies are insufficient to monitor the work of physicians who are employed by institutions which pay bonuses for saving money. I would suggest that seldom have "standard" peer review bodies effectively criticized colleagues for the sole reason that *excessive* patient care has been given.

It seems to me that if physicians can be criticized for saving money by limiting care which, in turn, increases their incomes, that it is time for those of us in the medical profession to criticize those who give care to increase their incomes.

Very likely, the truth is that a few physicians who receive bonuses for saving money skimp on their

patients' care. And, it is also likely that few physicians give more care for the sole purpose of augmenting their incomes. The interesting fact is that the former is criticized in the medical press and the latter in the lay press. Is it not time for physicians and those who are involved in health care cost containment to examine these problems together, thus encouraging mutual understanding?

Whether physicians are rewarded for omissions or commissions, their professionalism and concern for their patients will, hopefully, prevail. Either way, there have been and will be abuses. The key is to recognize these facts and take steps to correct them. In those instances where abuses occur, effective, not "standard" peer and utilization review, and quality control activities should and can solve the problem.

Accountability is a concept seldom encountered by practicing members of the medical profession. Yet we must be accountable both individually and as a profession, for our every act or failure to act produces a result. It is quite popular to emphasize points by utilizing famous quotations. There is one which is known to generations of Virginians. Thomas J. "Stonewall" Jackson said, "You may be whatever you resolve to be." Let us resolve to be *vigilant*, lest the quality and ethics of our profession be influenced by financial gain. Let us aggressively monitor ourselves and, with the courage of our convictions, control the quality of what we do with seriousness of purpose and dedication.

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The author recently left active practice to seek involvement with efforts to contain health care costs.

add immeasurably to the treatment of the new or chronic asthmatic. Immunotherapy has recently been proved effective in the treatment of asthma in a double-blind controlled study of Ohman et al.[7]

Cromolyn sodium, which suppresses the release of mast cell mediators, is often overlooked in the treatment of asthma. This is the drug of choice for the treatment of asthma in Great Britain and when used successfully, is more effective and has less side effects than beta-2 stimulants, theophylline and corticosteroids.[8] Cromolyn blocks the immediate and late response to inhaled antigens. It can be administered in powder form by spinhaler or in liquid form by nebulizer. It is often effective in extrinsic or intrinsic asthma.[9]

Conclusion

The failure to look for and treat allergy in asthma and the failure to attempt to suppress the release of mast cell mediators can lead to irreversible lung damage. Symptomatic treatment alone is inadequate.

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VIRGINIA MEDICAL
EDITORIAL

MSV for the Doctors

PROBABLY the most divisive action every taken by The Medical Society of Virginia was that adopting unification with the American Medical Association. Let us leave aside the mechanics involved in the actual process, as well as the advantages of membership in the AMA, and ask the pertinent question: Why should the physicians of Virginia seek/retain membership in The Medical Society of Virginia? The answer: Because medicine must speak with one voice. A unified profession is the only effective one, and The Medical Society of Virginia is the only organization with the influence and authority to speak for medicine in Virginia.

The Society's campaign for tort reform provides a good example. The campaign is an all-out effort to solve the problem of liability insurance coverage. Over and above this campaign, both the Professional Liability and Legislative Committees perform careful studies of all proposed legislation, federal as well as state, and recommend positions to the MSV Council and the House of Delegates. The Society's lobbyists make legislators aware of these positions and are often able to influence the promotion of positive legislation and the defeat of harmful legislation. Who else supports the physicians?

VIRGINIA MEDICAL provides a forum for Virginia physicians. Each issue provides medical news and views as well as scientific articles. The journal is an important part of the Society's attempt to keep the membership abreast of the present-day state of medicine and medical affairs.

The foregoing are only two examples. The Medical Society of Virginia provides many services, among them continuing medical education, insurance, and the impaired physicians program.

The Society's role can be summarized in two words: Effective Promotion—of and for the physicians. This will be the message of the campaign for new MSV members described by Dr. Hollingsworth elsewhere in this issue. E.L.K., JR.

Medical Business: End of a Profession?

As the marketing experts and entrepreneurs are taking over the "health care field," it becomes more obvious that the professionalism and independent judgment which has characterized American medicine is in a terminal state. Independent judgment is being replaced by gatekeepers, both physicians and third parties, who interpose their business decisions between the doctor and the patient. Daily we are faced with getting somebody else's permission to hospitalize a patient or to perform certain procedures. We are told when we can obtain consultations or surgical assistants, when we can perform a procedure on an inpatient basis, when we have to discharge a patient.

The professionalism and trust which has been the mainstay of a satisfactory physician-patient rela-

tionship has been stripped away from us. We are well on our way to becoming technicians subject to the direction, not of our peers but of business tycoons and politicians.

How did we get into this terminal state? Who is responsible for the DNR (do not resuscitate) written on this final chapter of American medicine? It is easy to blame the politicians and big business. However, this is not the whole story. The extreme selfishness and turf-consciousness of many physicians made medicine an easy target. The belief that what happened to colleagues in a different specialty or in a different part of the country was of no concern to us played into the hands of the planners. The willingness to compromise principle in order to make a quick buck or to obtain new patients has led to advertising and to performing procedures under less than optimal circumstances.

The desire to obtain a "market share" has led physicians to participate in health care plans which put an economic premium on not spending the alloted budget, with a distribution of the "profits" at the end of a fiscal year, thus creating a profit by spending less on patient care.

Physicians who were patient advocates have become purveyors of a commodity, and the less that commodity is used up, the more the doctor and the plan gain financially. Our willingness to participate in such schemes has stripped us of the respect to which our profession once entitled us.

And still we are fighting one another, and are more concerned with blaming our leaders than rallying to their support. We still are unwilling to take a stand and to declare "Enough is enough!" Our individualism, which stood us in good stead as medical practitioners, has been our Achilles heel in trying to unify the profession.

In this darkest hour of American medicine there are only two alternatives left us. We can continue on the downward spiral and expect to be employed technicians, or we can sublimate our differences and face the enemies of good patient care by banding together and upholding those standards and principles of individual care and caring which made our profession great. The choice is ours. Let us show our critics that the "terminal patient" can rise up and walk again.

W. Leonard Weyl, MD

The Toone Professorship

Elsewhere in this issue is an historical note by Elam C. Toone, MD, Emeritus Professor of Medicine, Medical College of Virginia/Virginia Commonwealth University. Publication of an article by Dr. Toone is particularly apt at this time. The Medical College of Virginia has recently announced the establishment of the Elam Toone Professorship of Medicine in recognition of his illustrious career.

Dr. Toone founded the MCV Arthritis Clinic in 1938, a time when there was no such thing as an arthritis specialist. Since then he has continued to be a leader in the field of rheumatology and is the author or coauthor of more than 70 scientific publications, mainly on that subject. He has gained worldwide recognition by his peers, but Dr. Shaun Ruddy has said it best: "Medical students and senior faculty alike have learned, 'when you don't know what it is, ask Dr. Toone.' "

Dr. Toone himself says that his greatest satisfaction has been in the success and productivity in the field of rheumatology by his former fellows. For him, that has been his real achievement.

E.L.K. Jr.

Dr. Elam C. Toone, right, has an attentive listener in Dr. Charles L. Cooke at The Medical Society of Virginia's annual meeting late last year in Williamsburg.

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For additional information on the Rehabilitation Institute of Virginia or physical medicine, please call (804) 928-8100.

VIRGINIA MEDICAL OBITUARY

C. A. Young, Jr., MD

Dr. Charles A. Young, Jr., for many years an ophthalmologist in Roanoke, died December 19, 1986, in a Roanoke hospital. He was 69 years old.

The son of a Roanoke physician, Dr. Young was a graduate of Virginia Military Institute and the University of Virginia School of Medicine and trained at hospitals in New York City. He served with the U.S. Army Medical Corps during World War II.

Dr. Young was a past president of the Virginia Society of Ophthalmology and Otolaryngology. He had been a member of the Roanoke Academy of Medicine and The Medical Society of Virginia for almost 40 years and belonged also to many national organizations, including the American Medical Association, the American Academy of Ophthalmology and Otolaryngology, the Association for Research in Ophthalmology and the American College of Surgeons.

Memoir of George Craddock 1908-1985

By E. A. Harper, MD, R. B. Crowder, Jr., MD, and J. E. Haynsworth, MD

Dr. George Barksdale Craddock died December 11, 1985, in Lynchburg, the victim of a tragic traffic accident.

Born in Lynchburg on October 24, 1908, he was the son of the late Abram Poindexter Craddock, a founder of the Craddock-Terry Shoe Corporation, and Ella Elizabeth Goodwin Craddock. Dr. Craddock was educated in the Lynchburg public schools and received a BA degree from Washington and Lee University and his MD degree from Jefferson Medical College in Philadelphia. He continued his training at Philadelphia General Hospital and at the Medical College of Virginia Hospital, where he was chief resident on the service of Dr. William Porter. He then began the practice of internal medicine in Lynchburg in 1940. From 1942-1946 he served with the US Army Medical Corps in the 45th General Hospital in Africa and Italy. He attained the rank of major.

He was a diplomate of the American Board of Internal Medicine, a fellow of the American College of Physicians, a member and former president of the Lynchburg Academy of Medicine, a founding member and former president of the Virginia Society of Internal Medicine, a member of the Virginia State Board of Medicine from 1963-1975 and its president from 1973-1974. He was a member of the American Medical Association, The Medical Society of Virginia, and the staffs of Virginia Baptist Hospital and Lynchburg General-Marshall Lodge Hospital.

He was a member of Sigma Alpha Epsilon fraternity and of O.D.K. Dr. Craddock was an active member and former vestryman of St. John's Episcopal Church, a member of the Sphex Club and Lynchburg Camp on the Cowpasture River. He was a former member of the alumni board of directors of Washington and Lee University.

In 1971, Dr. Craddock was the recipient of the Lynchburg Citation, the highest award presented by a Washington and Lee alumni chapter, and in 1977 he was given the Distinguished Alumnus Award by Washington and Lee University. He was named Distinguished Internist of the Year by the Virginia Society of Internal Medicine in 1979 and received the honorary degree of Doctor of Science from Washington and Lee University in June of 1985.

Survivors include his wife, the former Mary Spencer Jack; two sons, Dr. George B. Craddock, Jr., Charlottesville, and Theodore Jack Craddock, Lynchburg; a daughter, Alice Ashley Craddock Massey, Norfolk; and eight grandchildren.

Dr. George Craddock will be sorely missed by his patients and colleagues alike. He epitomized the caring physician in his devotion to his patients and their families and his commitment to the constant study of the newest developments in medicine. He was an avid student of medical history and an admirer of William Osler, of whose writings he had a large collection. He was a devotee of sports, baseball in particular, with a remarkable memory for past feats. Dr. Craddock encouraged the expansion and variety of available medical services in the

community and provided personal guidance to many young physicians. He represented the finest in medicine both personally and professionally.

John G. Setter, MD

Dr. John George Setter, Portsmouth nephrologist, died unexpectedly on January 10 in Nassawadox at the age of 55.

Born in Buffalo, New York, Dr. Setter graduated from the University of Notre Dame and received his doctorate in medicine from the University of South Carolina in 1959. He trained at Georgetown University Hospital, then joined the staff of the Boston Veterans Administration Hospital as chief of the dialysis unit and served at Tufts University School of Medicine as an instructor in medicine. He was a member of the faculty at the Medical College of Virginia from 1965 until 1971, when he established his practice in Portsmouth. At his death he was medical director of the dialysis unit at Portsmouth General Hospital.

Dr. Setter's professional memberships included the Portsmouth Academy of Medicine, The Medical Society of Virginia, the American Medical Association, the American College of Physicians and the American Society of Nephrology.

Memoir of Meyer Vitsky 1905-1986

By William Bickers, MD, Maurice Vitsky, MD and Theodore Mack, MD

Obstetricians and gynecologists in Richmond and in Virginia as well as faraway places will long remember the happy association with Dr. Meyer Vitsky who died February 3, 1986. Not only colleagues but patients to the number of many thousands will recall his tender care. His sympathy and compassion were apparent in many, many ways.

In his early years of practice, Dr. Vitsky's activities were largely confined to the Retreat Hospital, for which he bore happy memories as long as he lived. It is estimated that he delivered over 10,000 babies and his patients span two and three generations. Such intimate contact with patients and babies over so many years produced some interesting and amusing anecdotes along the way. These he recorded in a delightful book, *The Womb and I.*

Born in Richmond, he was a 1926 graduate of the University of Richmond where he played fullback on the football team. He graduated from the Medical College of Virginia in 1930, then served an internship at St. Vincent DePaul Hospital in Norfolk and subsequently worked as a resident at Retreat Hospital from 1931 to 1934. Later he practiced at the Richmond Memorial Hospital, MCV, St. Mary's Hospital and over a period of many years gave freely of his talents and energy to the patients at Sheltering Arms Hospital.

Dr. Vitsky served as vice chief of staff at Richmond Memorial Hospital and was associated clinical professor of obstetrics and gynecology at MCV, where he was active in the early development of fetal monitoring.

Those of us who grew up with Meyer recall the happy summers we spent at Camp Shawondassee. During this time his eager pursuit of merit badges made him one of the first Eagle Scouts in Richmond.

Considerable national recognition came to Meyer from the New England Obstetrical and Gynecological Society. In the decade of the fifties, there was considerable interest in the incompetent cervical os as the cause of premature labor and mid-trimester abortions. This interest attained worldwide acceptance of a surgical procedure known as "circlage." This consisted of placing a nonabsorbable suture under the vaginal mucosa around the cervix in the region of the internal os to prevent premature dilation and pregnancy wastage. While this was the treatment of choice for incompetent cervix, Meyer designed and practiced a much simpler procedure. He used a Smith-Hodge pessary to support the mid-trimester uterus and prevent premature cervical dilation. This gradually attained acceptance as an alternative treatment.

Dr. Vitsky was a member of the American Medical Association, South Atlantic Association of Obstetrics and Gynecology, the Richmond Academy of Medicine and The Medical Society of Virginia. He was a diplomate of the American Board of Obstetrics and Gynecology.

His personal life was as beautiful and rewarding as his professional life. Married to Sara Straus, he had a daughter, Barbara Anchell, and a son, Dr. Brian H. Vitsky of Jacksonville, Florida. For many years he was associated with his younger brother, Dr. Maurice S. Vitsky, in the practice of obstetrics and gynecology in Richmond.

He passed away after a long illness in the full bloom of affection of his colleagues and love and admiration of his patients.

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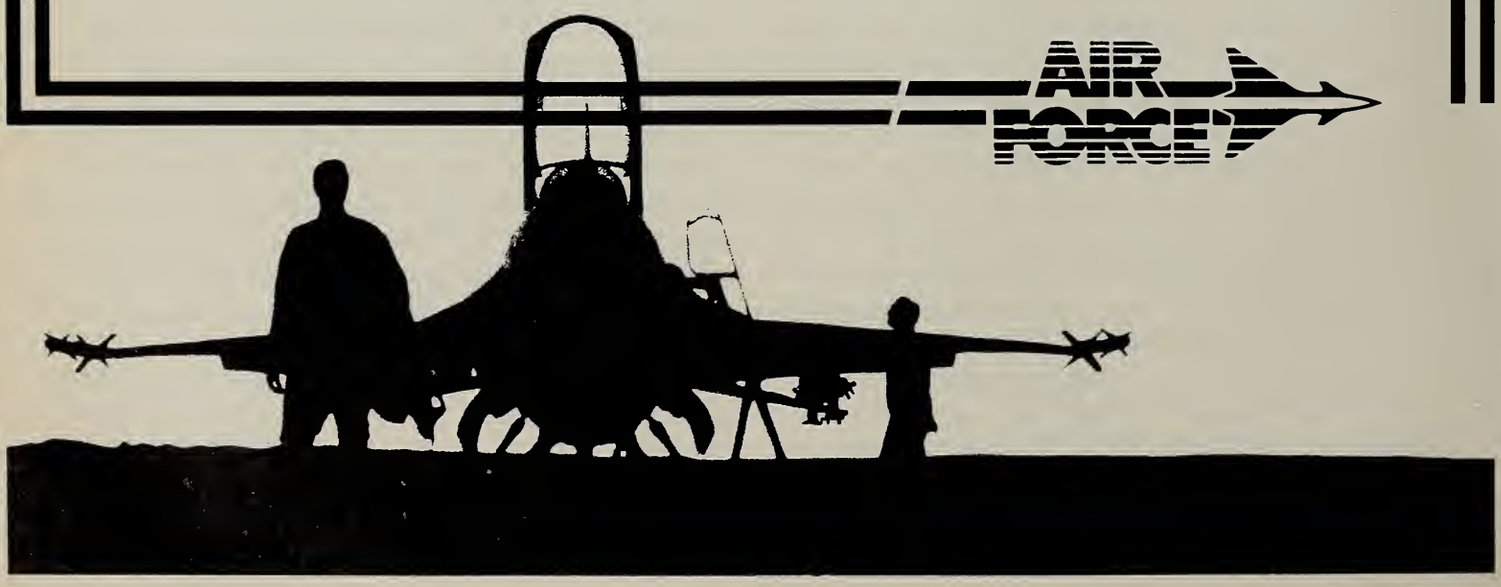

VIRGINIA MEDICAL

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Public Affairs Report

HOUSE AND SENATE RESOLUTIONS opposing Medicare reimbursement policies, especially MD-DRGs and mandatory assignment, had drawn six Virginia congressmen and Senator Warner as cosponsors as this was being written, and the Medical Society of Virginia was working to sign up more. The six congressional cosponsors: Bliley, Olin, Daniel, Parris, Boucher, Pickett and Wolf. Call your favorite congressman, whether any of those six or not, and tell him how you feel about the proposed changes. Senators Warner and Trible need to hear from physicians, too. These are concurrent resolutions, #30 on the House side and #15 on the Senate side.

PARTICIPATION EIGHTY-EIGHT is the name of a program the AMA is gearing up to send 150 physicians and spouses as delegates and alternates to the Republican and Democratic national conventions in 1988. If you're interested, get into the delegate selection process early. For more information, write to Participation 88, Suite 870, 1050 Connecticut Avenue NW, Washington DC 20036.

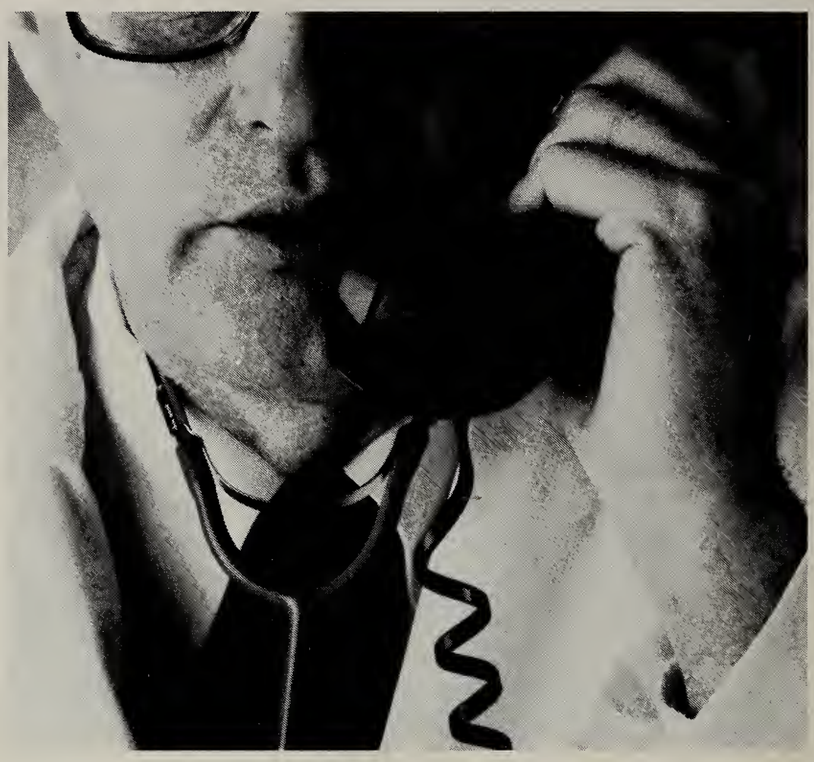
VaMPAC MEMBERSHIP was sharply up as of March 1, when the roster showed 1,154 members, compared to 318 at the same time last year. This is a major election year, with all House and Senate seats in contention--a great opportunity to make our concerns known. The ballot is our strongest weapon.

PHYSICIANS WHO SUPPORT VaMPAC with a contribution of at least $250 comprise the special PAC 250 group. There will be a reception for PAC 250 members and their spouses at the Governor's mansion in Richmond in May. By joining this leadership group you can make a real contribution to your profession and your state.

THE SUPREME COURT'S recent decision declaring that a school teacher with tuberculosis was protected by antidiscrimination laws may presage extension of the same protection to AIDS patients.

--W. Leonard Weyl,MD

Physicians Always Are Referring To Our Reputation.



Physicians refer to Saint Albans because of our excellent reputation as Virginia's only full-service, private, not-for-profit psychiatric hospital.

Since 1916, that reputation has been built on comprehensive care. We have fully accredited treatment programs for adults, adolescents and substance abusers. Specialized programs for senior adults, the treatment of eating disorders, phobias and pain management also are offered.

Today, the cost of such care is on the conscience of patients and physicians. We keep that in mind, too, and are proud that Saint Albans has the lowest current average patient daily charge of any private psychiatric hospital in Virginia.

When you refer patients to Saint Albans, you can rely on our reputation for the best possible care at the lowest possible cost. That's why physicians have been referring to us with confidence for 70 years. Call today, toll-free 1-800-572-3120, for a free brochure on Saint Albans Psychiatric Hospital or write to "Reputation," P.O. Box 3608, Radford, VA 24143.

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PEOPLES DRUG

Key Contact

Virginia's leading legislators rubbed elbows with Medical Society of Virginia members at VaMPAC's fifth annual reception honoring senators and delegates who hold key posts in Virginia's General Assembly. The date was the eve of the opening of the 1987 session, the setting was the ballroom of the Commonwealth Club in Richmond, and the turnout was the biggest in the reception's history, with about 200 physicians, legislators, aides and spouses crowding convivially around the buffet table. The reception was preceded by a briefing conducted by the Society's Professional Liability Committee on the Society's tort reform campaign. Chief speaker was attorney Lawrence H. Framme III, newly designated MSV lobbyist who is well-known to the legislature as chairman of the Democratic Party in Virginia. VIRGINIA MEDICAL's photographer was at both briefing and reception to take the pictures on these four pages.

Of the 69 legislators invited to the reception, these 36 came:

From the Senate

Hunter B. Andrews (D-Hampton)
Joseph B. Benedetti (R-Richmond)
Daniel W. Bird, Jr. (D-Wytheville)
Dudley J. Emick, Jr. (D-Fincastle)
Joseph V. Gartlan, Jr. (D-Fairfax)
Virgil H. Goode, Jr. D-Rocky Mount)
Clarence A. Holland (D-Virginia Beach)
Wiley F. Mitchell (R-Alexandria)
Frank W. Nolen (D-New Hope)
John W. Russell (R-Fairfax)
Richard L. Saslaw (D-Springfield)
Charles L. Waddell (D-Sterling)
Stanley C. Walker (D-Norfolk)

From the House of Delegates

A. L. Philpott, Speaker (D-Bassett)
Robert W. Ackerman (D-Fredericksburg)
Glenn R. Croshaw (D-Virginia Beach)
Alan A. Diamonstein (D-Newport News)
V. Earl Dickinson (D-Mineral)
Arthur R. Giesen, Jr. (R-Waynesboro)
Stephen E. Gordy (R-Fairfax)
William F. Green (D-Lebanon)
G. C. Jennings (D-Marion)
Mary A. Marshall (D-Arlington)
Alan E. Mayer (D-Lincolnia)
Dorothy S. McDiarmid (D-Vienna)
Thomas M. Moncure, Jr. (R-Stafford)
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Theodore V. Morrison, Jr. (D-Newport News)
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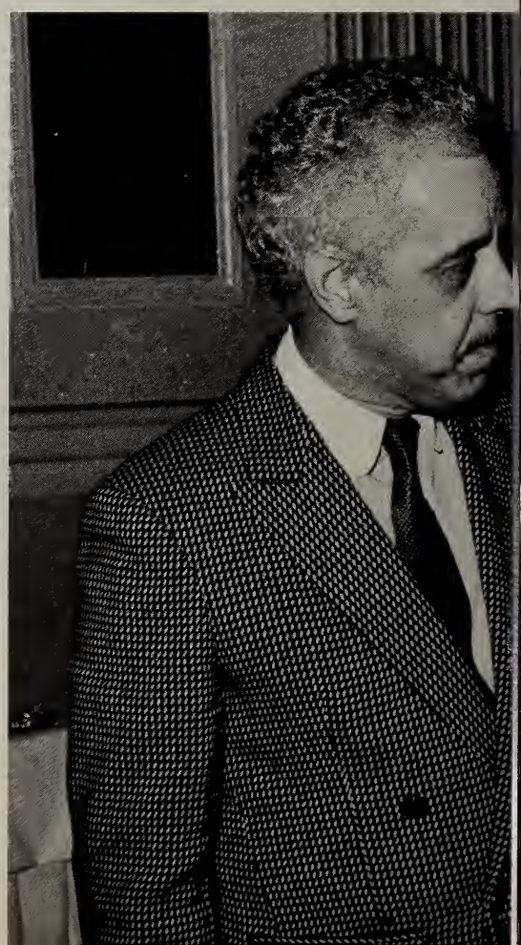
Lewis W. Parker, Jr. (D-South Hill)
John A. Rollison III (R-Woodbridge)
Franklin M. Slayton (D-South Boston)
Alson H. Smith, Jr. (D-Winchester)
C. Jefferson Stafford (R-Pearisburg)
Warren G. Stambaugh (D-Arlington)
S. Vance Wilkins, Jr. (R-Amherst)

▼ Senate Majority Leader Hunter B. Andrews (D-Hampton), right, with Dr. A. Eppes Harris, Jr., Blackstone, and Dr. John W. Hollowell, Portsmouth

▲ Dr. C. Barrie Cook, Fairfax, left, and Dr. Wasfi A. Atiyeh, Richmond



Dr. Quincy A. Ayscue, Norfolk, center; Dr. William H. Barney, Lynchburg, right; and Del. Royston Jester III (R-Lynchburg)

Photographs by Cyane Lowden

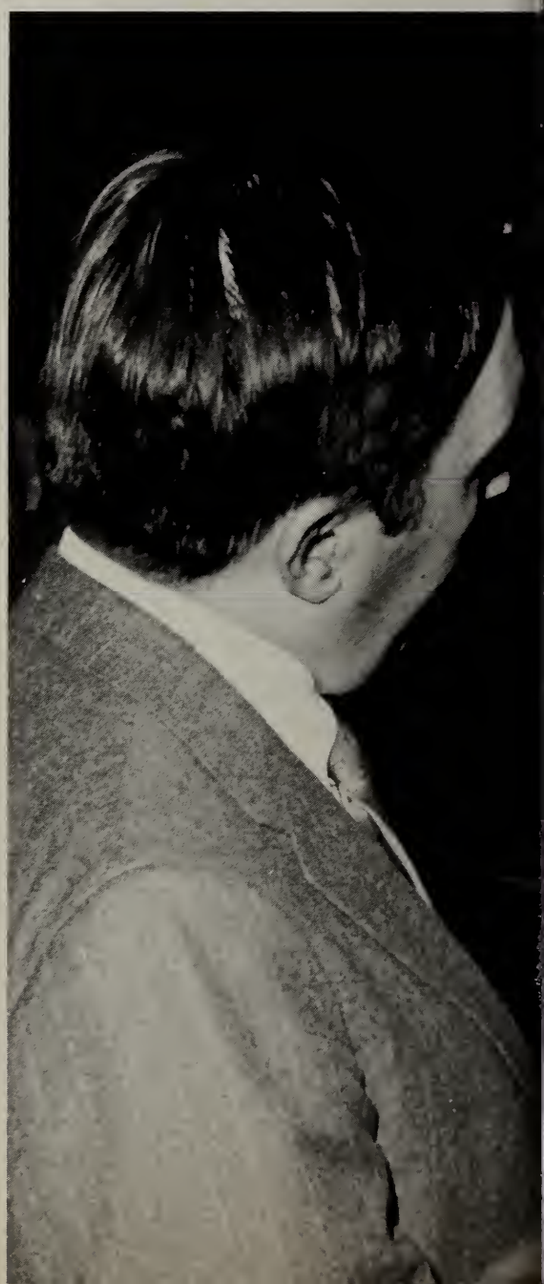
Lieut. Gov. L. Douglas Wilder, left, and Dr. Gerald C. Burnett, South Boston, VaMPAC chairman

From left, Del. Thomas W. Moss, Jr. (D-Norfolk); Dr. Kenneth D. Tuck, Richmond; Dr. Russell D. Evett, and Dr. Donald E. Sly, Norfolk

▲ MSV lobbyist Larry Framme, far right, Del. Alan A. Diamonstein (D-Newport News), center, and Del. Glenn R. Croshaw (D-Virginia Beach)

▼ Del. William S. Moore, Jr. (D-Portsmouth), and Dr. John W. Hollowell

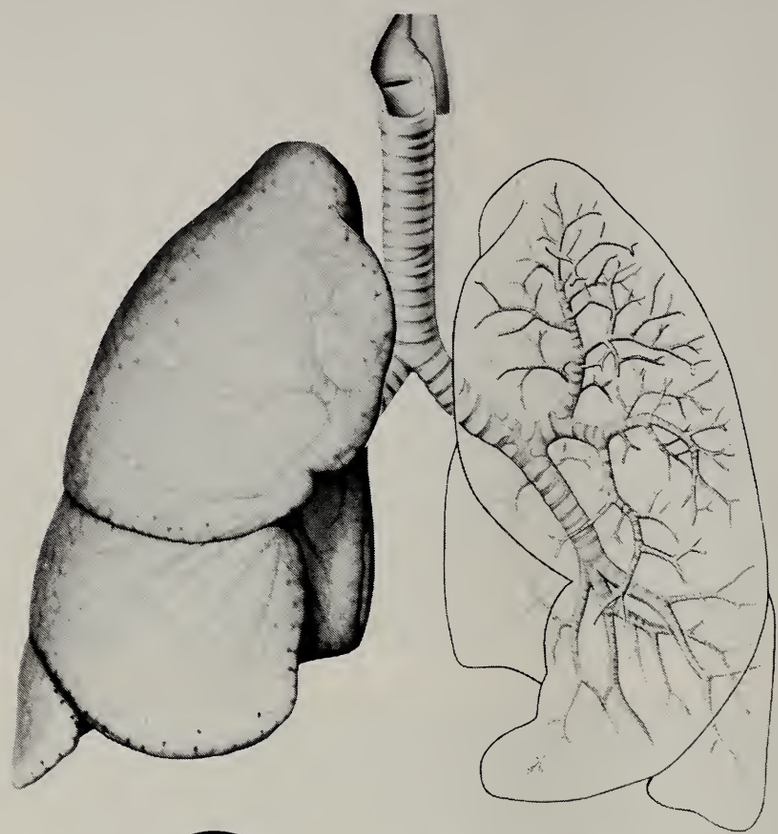
▼ Dr. Leon I. Block, Falls Church, right, Dr. Russell L. May, Fairfax, center, and Dr. Iver Kasenetz, Falls Church



▲ Dr. Duncan S. Wallace, Virginia Beach, left, EVMS student Tom Wagner, center, and Dr. Clinton H. Toewe II, Norfolk

◄ Del. Franklin M. Slayton (D-South Boston), center, Del. Dorothy S. McDiarmid (D-Vienna), and Dr. Norris A. Royston, Marshall

Consider the causative organisms...



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250-mg Pulvules® t.i.d.

offers effectiveness against the major causes of bacterial bronchitis

H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary. Consult the **package literature for prescribing information.**

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbiliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

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Note: Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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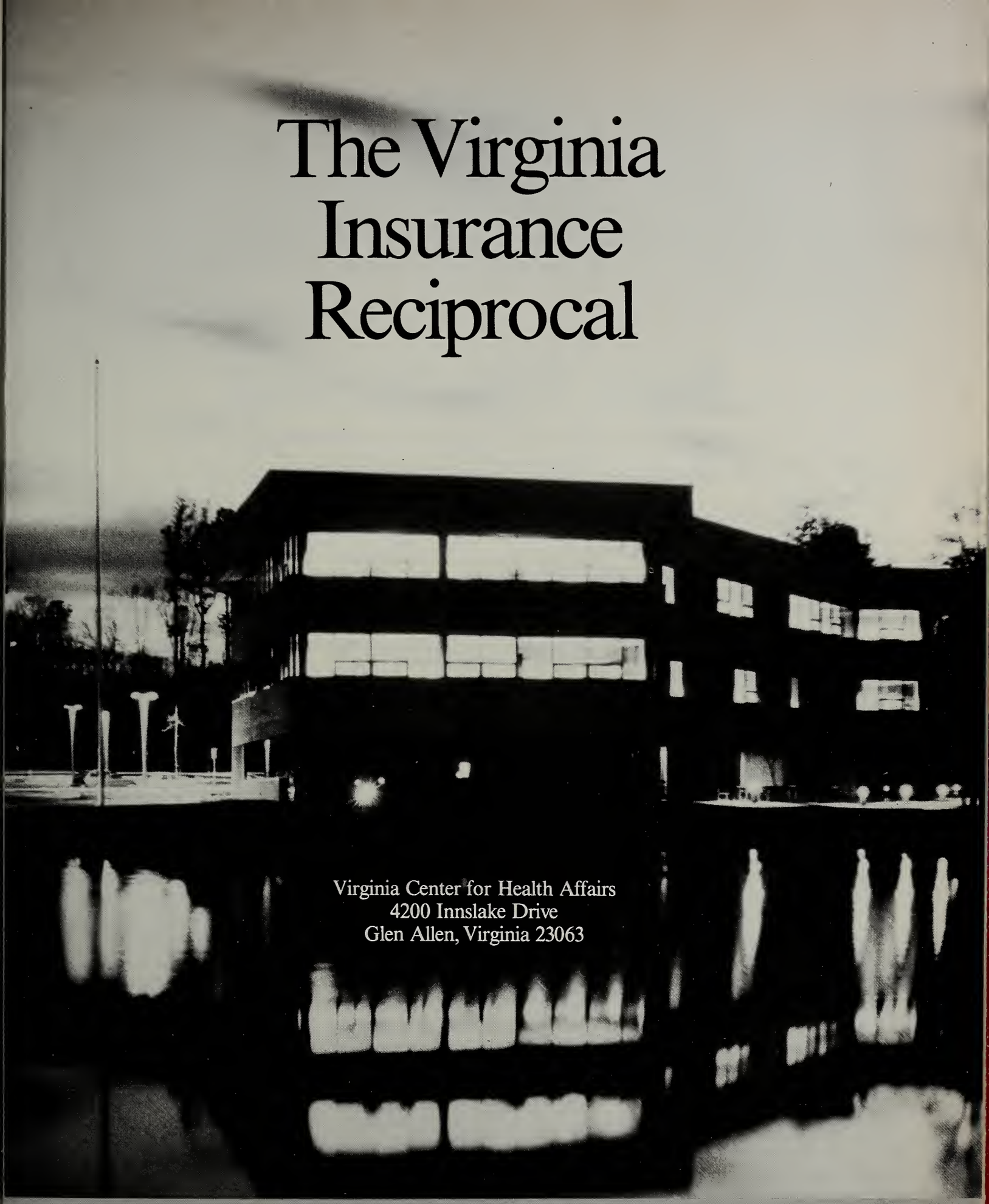

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Eight Who Survived

Four physicians and four wives of physicians describe the trauma of a liability suit, its impact on family and professional life, the lessons learned from the ordeal.

by Susan Mellis Ross

This material derives from the author's research for the Virginia Handbook on Professional Medical Liability, *an educational guide for physicians, spouses and family members, which is being mailed this month to all Medical Society of Virginia members. The handbook was initiated by the Medical Society of Virginia Auxiliary.*

THE DOCTORS

Case Report 1

This general surgery liability suit involved an intestinal bypass operation for morbid obesity on a mildly diabetic male with a history of seizures. Following surgery, a seizure occurred, resulting in neurological deficits, and the physician was sued. The case went to review panel phase, where the surgeon was exonerated.

"I first became aware of the situation when the patient's wife approached me one day saying she was considering a lawsuit. The next thing I knew I was served with a notice of claim from her attorney." After an initial reaction of shock and disbelief, the physician notified his liability carrier and ended up using the carrier's counsel as well as his own private attorney. During the hours of preparation and the two and a half weeks away from his practice for the panel hearing, the physician felt he was "being jerked around by the plaintiff's attorney's malicious and inconsiderate behavior. Despite the temptation to react to his insulting tactics, I managed to keep my cool, but it was a struggle. I can't help but feel the malpractice system is wrong and needs major reform."

Though not bitter, the physician has chosen to get personally involved in the tort reform issue, advocating caps on awards, public awareness and attitudinal change regarding physician expectations.

Always recurring in this survivor's mind is "No matter how good you are, you are still subject to a lawsuit." He cautions other physicians to familiarize themselves with the court process so that they actually see what goes on and to accept the fact that "No one has your best interests at heart like you do, so be on your guard and educate yourself on this issue."

Case Report 2

This internist's case involved treatment of a female with shingles

Mrs. Ross developed a liability handbook for the Utah Hospital Association in 1983 while her husband Tom was completing his residency in general surgery in Salt Lake City. They now live in Petersburg, Virginia.

and diabetes. The case went to trial, was reported in the news media and resulted in a $500,000 loss to the physician and his partner.

"I first became aware of the case by being served with a notice of claim. It was utterly amazing that the patient's family never sought to contact me beforehand." After notifying his liability carrier, the internist confided in his spouse. After her initial shock, "she was totally supportive, as were the kids. It was as if everyone internalized the lawsuit, as if we *all* were being sued. I guess it's really a credit to our closeness as a family that everyone came together." When the internist told his patients about the lawsuit, "they reacted with genuine support and anger that anyone would do this to me. Actually, I don't think the family would have pursued the case against me had it not been that one of the daughters had worked for a law firm."

At the four-day trial, the plaintiff's attorney created a convincing case against the physician. "It was character assassination right from the start. Certain comments were taken from the record so that out of context, I was a villain. The family was obviously coached to act convincing. The jury ruled for the plaintiff. To add insult to injury. details of the case were reported in the local newspaper. When I read the article, my anger turned to rage, as if I had been *had*."

The physician says his enjoyment of medicine has soured. He reports feeling compromised emotionally and suffers from recurring stomach ache. Other emotions include embarrassment that he had to ask other professionals for expert witness testimony, isolation, and intolerable stress.

"Clearly, the ordeal was the worst experience I have ever endured in my life."

Case Report 3

This obstetrics case involved a mid-forceps delivery precipitated by the baby's heart rate bottoming out during labor. When it was determined the infant had cerebral palsy, the parents filed a $2.5 million suit naming the physician, his corporation and the hospital. The case was settled after seven years for $500,000.

The physician's first awareness of a possible suit occurred when the parents approached him in hostility eight months after the baby's birth. The notice of claim was not filed until 24 months later. After notifying his liability carrier and his group's own legal counsel, the shock of actually being sued set in. "Over and over again I questioned my judgment as I reevaluated the management of that pregnancy and labor. A sense of panic, then despair followed." Complicating the physician's emotional reaction were the continual changes in trial dates. "My whole life, professionally and personally, was in such disruption for each of the five trial dates set and then dropped by the plaintiff's attorney. It was all so inconvenient to my office staff."

At home, coping with the lawsuit was difficult for his spouse. "At the time we were just five months out of residency and into private practice. My wife feared we would lose everything—house, furniture, status in the community. Her constant anxiety about our future prevented our starting a family, so we adopted a child instead. A successful pregnancy came after the trial was over."

At the physician's office, there was mounting suspicion of subversive employee activity. "Ever since we hired a new employee, about the time of the suit, I noticed the plaintiff's attorney knew when my days off were and what my vacation schedule was. Then there was a clicking sound on my telephone line. While I had no proof, I thought—and my partner concurred—that it sounded like some form of wire tapping and the employee was a 'plant' to leak information to the plaintiff's attorney. As paranoid as that sounds, I took no chances and discontinued making telephone calls and handling correspondence relating to the case at the office. It was all rather freaky when the employee in question resigned at the conclusion of the case."

The final straw was hearing about the case on a local radio station. "Shortly after the fifth trial date was cancelled, I heard a news bulletin reporting that my case had been postponed, with sensational details and the wrong monetary figure. I decided then and there the time had come to end this embarrassment to me, my partners and my wife." The bargain between the physician and his attorney was settlement out of court in exchange for a sealed verdict (no further publicity), no admission of guilt, and continuation of liability coverage by the carrier.

This obstetrician now views his profession in a different light. "I have this lingering sense of outrage—medical malpractice is a breach of contract with why and how I came to practice ob/gyn. I still feel like a hunted animal and would not choose to go into medicine if I had it to do over again. All the joy has been stripped away."

Today, this physician minimizes risks by doing more C-section deliveries, avoids long, drawn-out labors, documents everything he communicates with patients, and is more likely to get consultations from other physicians. He expects to drop his obstetrics practice early, possibly in the next five years.

Case Report 4

This case involved treatment by an internist of a morbidly obese

Coming next month in Va Med: A report from the winning MSV tort reform team and how the new legislation affects medical liability.

male with a history of seizures, hypertension and electrolyte imbalance. While on a regimen of phenytoin sodium (Dilantin®) to control his seizures, the patient suffered an intestinal obstruction. Following surgery, the seizure medication was not reordered, and a grand mal seizure occurred. A suit was filed, naming the internist, who had seen the patient eight hours prior to the seizure, the hospital and the surgeon. A review panel unanimously decided the internist had not breached any standard of practice and exonerated him. The plaintiff filed a $2 million lawsuit anyway, and it went to trial. The judgment was in favor of the internist by a unanimous jury decision.

"Initially, I was angry that such a frivolous case with no shred of evidence of my wrongdoing was dominating my professional and personal life to such an extent. Then depression set in, as I worried where I would come up with the funds to pay for a judgment. My attorney's warm and friendly manner, in conjunction with my wife's solid listening ear, helped me to climb out of the depression and cope with the anger." This was particularly helpful in dealing with the impact of the suit on his practice. "What was supposed to be a one-week trial lasted three weeks. Fortunately, the inconvenience to my patients was not a problem, and referrals from other physicians were not affected.

"How I survived this assault has taught me a valuable lesson. I cannot live my life expecting there is a lawyer behind every IV pole. If I am sued, I'll defend myself." Being prepared to be angry and to work through it is normal, the internist believes. He also feels the suit shouldn't be allowed to shake one's confidence because it takes every bit of personal fortitude to defend oneself vigorously. "No attorney can do that for you."

The Wives

Case Report 1

This case involved an attending orthopedist's treatment of an indigent child for leg injuries. Following surgery to set the leg, a floor nurse failed to report pain in the patient's leg. Vascular complications developed, requiring further surgery. A $3 million lawsuit was filed against the orthopedist, the resident on the case and the hospital. Six years later, after trial, the court ordered the hospital to pay $450,000 in damages to the plaintiff.

"My husband informed me of the lawsuit just before the panel hearing. At first I reacted in shock, disbelief and general anger. But I soon put my negative emotions aside and decided to focus my energies on supporting my husband. Together we told our three teenage children and agreed to keep them apprised of the case's progress. Their supportiveness reinforced a strong family value—to strive for what you think is right in life and to believe in oneself. The children suddenly became more aware of their Dad's profession and the stresses he deals with."

Soon the case dominated the couple's life entirely. Together they went to meetings with the defense attorney, read all the background material and made decisions at each juncture of the case. "At deposition our concerns were most acute. No sleep or interrupted sleep, weight loss, anger, obsession to leave no stone unturned' and mounting suspicions of the law profession."

Just as the impact of the suit reaffirmed strong family communication, the physician's candor and honesty with his colleagues and patients paid off with supportiveness. No decline in patient numbers was noted.

For the spouse there was a letdown period following the trial. "My way of coping with the depression was to reach out to a network of other physicians' spouses. Their comfort and support boosted me out of feeling worn out and emotionally drained after the six-year fight."

Case Report 2

This spouse witnessed her surgeon-husband's encounter with two liability suits back to back. Though one was dropped and the other was settled out of court, she remembers living with the strain as though it was a black cloud hovering over her family.

"I didn't become aware of my husband's lawsuits until after the notification of claims. Being a quiet, taciturn man, his modus operandi was silence. For me, I reacted with shock, anxiety and many questions. Waiting and waiting only increased my stress level so that the suits were on my mind constantly."

She sat by watching her huband grow quieter, more isolated, moodier, sleepless. "The family was not excepted from his style of coping. It wasn't until three or four years

later that the children were told about the claims."

But both physician and wife have found benefits in the experience. Professionally, the husband is making an effort to communicate better with his patients, using more caution in record-keeping and practicing a more defensive style of surgery. "Personally, he relates to me better today. He opens up and vents more of his feelings and anger, instead of my having to pump it out of him." Also, the couple has used the experience to educate themselves on the medical malpractice issue so that they will be better prepared if they are ever faced with another suit.

Case Report 3

A family practitioner examined and treated a child for sore throat in his office. Later, the child was taken by the parents to a hospital emergency room, was kept overnight for observation and admitted the next morning. Very shortly therafter a cardiac arrest episode occurred, a tracheostomy was performed, and a variety of other medical problems ensued. A suit was filed accusing the physician and the hospital of negligence. Four years later a trial by jury exonerated the physician. The hospital settled out of court.

"I learned of the incident the day it occurred. My husband told me the parents were in the process of a divorce and were quite antagonistic and might have a hostile reaction to the child's illness. His warnings were correct. He told me of the lawsuit the day he received the letter of intent to sue from the plaintiff's attorney." Her first reaction was a sensation of her stomach turning over and feeling personally assaulted. Later, as she talked with her husband, that changed, but "there were a lot of ebb and flow periods as we waited anxiously for the trial."

The experience brought this couple together. The coping mechanisms they found helpful were 1) to maintain a sense of humor about the situation; 2) to look to the positive side of the issue; 3) to rely on one's basic faith in life and in one another; 4) to consider the experience as a part of living; 5) to hold firm against the intimidation tactics of attorneys.

Case Report 4

This case involved a family practitioner's treatment of a 6-year-old. Following an injection by the physician's nurse, a spreading infection developed, leading to hospitalization and plastic surgery. A lawsuit was filed claiming the physician should have supervised administration of the medication. The case was resolved five years later with a settlement out of court.

"I found out 'we' were being sued at the dinner table three years after my husband treated the child, and well into the case. My reaction was unquestionable support and reassurance, but I had never played an active role in the business side of my husband's life, and the suit was no different. He actually didn't dwell on the case much when around me or the kids, although it was obvious the stress was getting to him because he was short-tempered and put on weight."

For the spouse, the initial feelings of personal devastation faded in the face of numerous legal postponements and an active schedule with the children. When the suit was settled, the physician did not want to talk about the case with his family. "Even his parents, who were deeply troubled, were not confided in."

Today, the physician is unchanged in his attitude toward mixing business and family. "My husband feels the less I know, the less I'll worry and be a problem to him."

Practical Coping Skills

How a physician, spouse and family members live with the ordeal of a liability claim depends on the personalities involved, but the following coping skills seem to be uniformly effective.

- **Be informed.** The more the spouse and children know about the issue of liability, the legal process, emotional reactions that can be expected, and just what options are facing the physician-defendant, the more help the family can be.
- **Be supportive.** Reassurance that the family believes in the physician's ability is now more vital than ever. This is a time that calls for compassion and understanding to cope with the mood swings.
- **Take time to do something together.** With the pressure closing in around the household, take a day or weekend away to do something that everyone loves but hasn't done lately.
- **Offer physical comfort.** Affection and physical contact form a vital counter-attack to the feeling that everything is falling apart. It sends the message that come what may, the family is not dissolving.
- **Communicate as a family.** Expressing concerns and being a good listener can alleviate the buildup of tension and anxiety. A spouse particularly can help a physician-defendant think more rationally and positively about the meaning and implications of the lawsuit.

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Broncholithiasis: Case Report and Review

B. T. Westerfield, MD,
Martinsville, Virginia

BRONCHOLITHIASIS is a condition in which calcified material is present within a bronchus or within lung tissue communicating with a bronchus. This entity was described as long ago as Galen and Aristotle and was known as the "spitting of stones."[1] The stones usually begin as calcified lymph nodes which erode into a bronchus. Broncholithiasis is significant because of the non-specific symptoms which can occur and the frequent lack of suspicion as to the cause of these symptoms.

This paper will discuss the clinical spectrum, advances in diagnosis, and appropriate treatment of broncholithiasis.

Case Report

A 61-year-old white female presented to her family physician with vague intermittent pleuritic chest discomfort of several months duration. Past medical history was remarkable only for a remote pneumonia episode and ten pack years of smoking many years previous. Physical examination was normal and the patient had no sputum production. Chest radiograph showed stringy infiltrate in left upper lobe with some loss of lung volume. A PPD was negative. Two months later the x-ray was unchanged and the patient consented to fiberoptic bronchoscopy. At bronchoscopy the upper division of left upper lobe was concentrically occluded without inflammation or edema. Biopsy of the mucosa revealed only non-specific chronic inflammation; brushings and washings also did not produce evidence of malignancy.

The patient did not return until three years later, when she again experienced non-specific pleuritic pain. A chest roentgenogram (Fig. 1) showed atelectasis of the left upper lobe and left-sided pleural effusion. A radiograph four days later showed resolution of the pleural effusion and reduction in atelectasis. A calcific area in the region of the left upper lobe was also recognized and the diagnosis of broncholithiasis considered. Fiberoptic bronchoscopy revealed very smooth occlusion of the upper division of the left upper lobe. Biopsies of this area showed granulation tissue and giant cells. Stains for AFB and fungi were negative. Additional studies included CT scan of the chest (Fig. 2) and lung tomograms (Fig. 3) which demonstrated calcific density in the left upper lobe bronchus.

The patient underwent thoracotomy with resection of the left upper lobe. A broncholith was present at the take-off of the upper division of the left upper lobe, and this entire section of left upper lobe was dark-colored and congested. The lingula was grossly and microscopically normal. No tumor was present.

Discussion

Broncholiths originate from three different sources. They may develop within the lumen of a bronchus subsequent to the deposit of calcium around a foreign body nucleus. They may occur as consequence of calcification or ossification of the elastic cartilage of the bronchus resulting from aging, with subsequent erosion of the calcified material into the bronchial lumen. The majority of broncholiths, however, occur as the result of erosion and protrusion of calcified hilar and paratracheal lymph nodes into the tracheobronchial tree.[2]

The etiology of the calcification of the hilar and paratracheal lymph nodes is varied and often unknown. It is generally agreed that calcification develops in areas of inflammation necrosis and often in lymph nodes. The formation of calcific nodes is usually the end result of a prior granulomatous infectious process extending into hilar and mediastinal lymph nodes. The exact biochemical mechanism is not understood, but the process appears to be related to the precipitation of calcium salts in alkaline tissue.[1]

In the past, tuberculosis was the usual granulomatous process linked to this entity, but now broncholithiasis is most commonly the result of histoplasmosis. In most cases of broncholithiasis a specific organism is not identified. This is logical since the original infection occurred years previously. The pathology from resected tissue reveals stone, fibrosis, chronic inflammation, and often, healed granulomas. The clinical history and radiograph may point to the etiology. Skin tests are rarely helpful. When organisms are successfully cultured from tissue specimens, the *Histoplasma* organism is found most frequently.[3]

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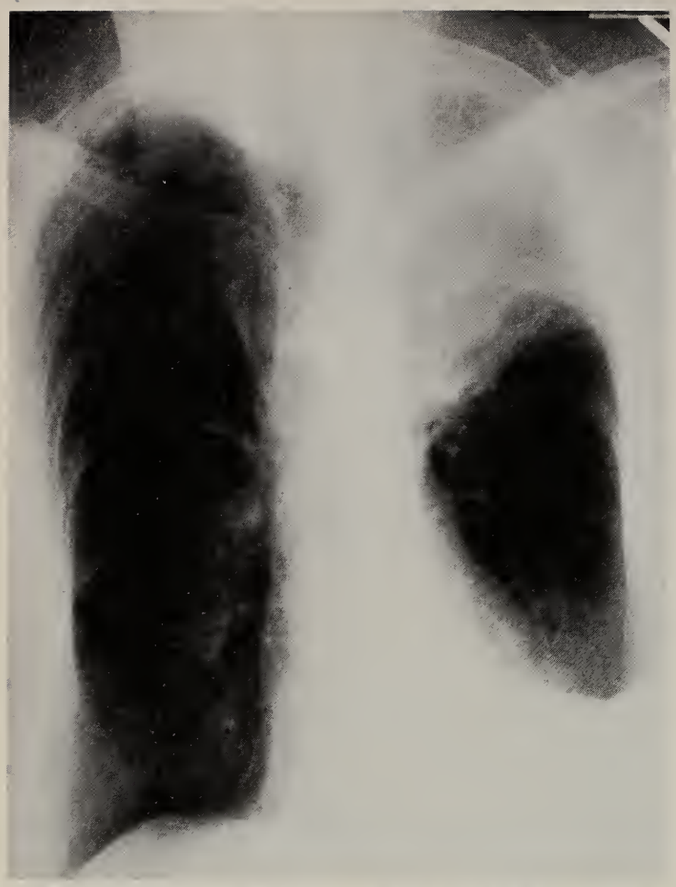

Fig. 1. PA chest radiograph. Atelectasis of left upper lobe and left-sided pleural effusion.

Fig. 3. Lung tomogram. Calcific density in upper division of left upper lobe; lingula bronchus not involved.

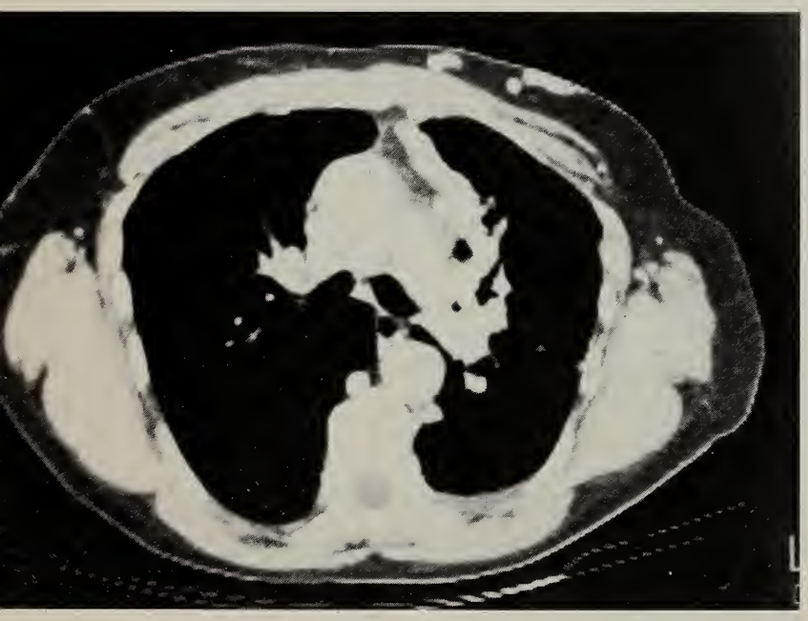

Fig. 2. CT scan of chest. Solid density present in lumen of left upper lobe.

Mycobacterium infection is probably the next most frequent granulomatous condition responsible for broncholithiasis and is still considered the leading etiology in Great Britain. Broncholithiasis due to intrapleural calcification from pleural tuberculosis has also been reported.[4] Other organisms identified in this calcific complex include nocardia, coccidiomyocosis, and actinomycosis. Broncholithiasis has been reported due to silicosis, which can cause significant hilar node calcification.[5] There is also a report of a renal stone which passed through a fistula into the bronchial tree and was expectorated.[6]

Once calcification occurs in a hilar or bronchial lymph node, it is thought that over time the motion of ventilation causes pressure atrophy of the bronchial wall with resulting erosion, ulceration, or obstruction of the bronchus. Broncholiths vary considerably in size and consistency. They are usually irregular in shape, have pitted surfaces, and are grayish-white in color. They may be single or multiple. Most are hard and gritty, but on occasion they are soft and putty-like. The largest size reported is 139 grams. One patient was reported to have expectorated more than 400 stones.

Broncholithiasis presents most commonly in patients of middle age, and cough is present in 90% of patients. Some patients may cough up a small stone thinking it is an aspirated filling or piece of tooth; most, however, do not expectorate anything but have persistent dry cough. Hemoptysis is present in

50% of patients. The patient may also present with fever and chills or purulent sputum suggesting acute infection. Less common findings include wheezing and pleuric chest pain. "Stone asthma" is a name that has been applied to this wheezing. In the rare patient in which a broncholith has eroded both into the bronchus and the esophagus, developing a broncho-esophageal fistula, there may be the presence of coughing immediately upon eating. The average duration of symptoms until the diagnosis of broncholithiasis disorder is 4.5 years, but most have symptoms for less than two years.[7]

The radiographic manifestations of broncholithiasis can be quite variable. Routine chest x-ray usually reveals hilar calcification, but this does not make the diagnosis since most people with hilar calcification do *not* develop broncholithiasis. In some parts of the country calcification on chest roentgenogram is common and hilar calcification may be present in up to one-half of all chest radiographs. The disappearance or changing position of a calcified focus on repeat radiographs can point to the presence of a broncholith. Lung tomograms (Fig. 3) and CT scan (Fig. 2) may both demonstrate a discrete calcification in a bronchus. Radiographic findings of obstruction are seen in many cases of broncholithiasis, and it can be confused radiographically with pneumonia, bronchiectasis, bronchogenic carcinoma, and tuberculosis. The pleural effusion in this case was probably due to a shift in intrathoracic pressure caused by abrupt lobar atelectasis.

Broncholiths are located on the right side more frequently than the left and are most common in the bronchus intermedius and right middle lobe bronchus.[1,7] Diagnosis of broncholithiasis begins with awareness of the clinical entity. Symptoms are nonspecific and may be chronic. The chest radiograph is very helpful, but often the "obvious calcification" in the area of a bronchus is not recognized until after other studies have been done. Lung tomograms or CT scan add support to the diagnosis.[8]

Fiberoptic bronchoscopy is almost always necessary in the workup of broncholithiasis. A calcified body directly in the bronchus or protruding from the bronchial wall may be seen. Smooth occlusion of a bronchus such as in this patient may be seen; at the second bronchoscopy the upper division of the left upper lobe was compatible with previous surgical amputation of the lung segment. In addition, inspection of the complete tracheobronchial tree is necessary because multiple stones may be present. Biopsies of mucosa show chronic inflammation, and in some tissue giant cells are present. In some cases fiberoptic bronchoscopy may be therapeutic since some small stones can be removed with the bronchoscope. It is not advised to be vigorous in attempts to remove stones since they may be adherent to the bronchial wall creating a real risk of uncontrolled hemorrhage.

The treatment for broncholithiasis is variable. The mere presence of stones on chest radiograph does not require intervention. Many patients expectorate their stones or can live with modest symptoms. Patients may be followed for years without complications. Indications for surgical evaluation include recurrent infection, life-threatening hemoptysis, broncho-esophageal fistula, and the inability to exclude neoplasm.[1] Of patients requiring surgical intervention (about 25%), a large number of broncholiths may be removed bronchoscopically, with either the fiberoptic or, more likely, the rigid bronchoscope. Many stones require open surgery. Occasionally a bronchotomy may suffice and the desire, always, is to resect the minimum amount of lung tissue necessary. However, chronic inflammatory adherent tissue leads to loss of tissue cleavage planes, with the lymph nodes intimately fixed to blood vessels and bronchi, and most frequently a lobectomy is necessary. On occasion a full pneumonectomy is required for this condition.[1,7]

Broncholithiasis will remain a diagnostic consideration in this country because of the continued prevalence of granulomatous lung disease. The symptoms are non-specific and may persist before a diagnosis is made. Although the complications can be severe, the outcome is usually excellent.

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THE MEDICAL SOCIETY OF VIRGINIA
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Dear Colleague,

From the beginning of my presidency, my main goal has been to bring all the physicians in the Commonwealth of Virginia together to meet the many challenges that face us. After visiting component medical societies around the state and after participating in the difficult but successful tort reform campaign at the recent General Assembly session, I am all the more convinced of the necessity for all physicians to join us as members of The Medical Society of Virginia.

Beginning on the opposite page is an insert listing 38 dividends of MSV membership. There are many more benefits of MSV membership, but these 38 are among the most important. Most of these benefits accrue to all the physicians in Virginia, whether they are MSV members or not. They are the result of the dedicated efforts of a great number of physicians who are working toward a common goal: better medicine in the Commonwealth of Virginia.

This insert will be distributed during the membership recruitment campaign beginning this month. I hope that the non-member physicians who read these dividends will understand what we are doing for them and will join us.

Sincerely,

Richard L. Fields, MD

Richard L. Fields, MD,
President

Committees chart MSV Course

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Virginia Physicians and Early Intervention Programs

Jean E. Shelton, MD,
Elaine Schneider, PNP, and
Jeff Johnson, MPA, *Norfolk*

PHYSICIANS are caring for an increasing number of high-risk and biologically handicapped infants. Several factors have contributed to this increase. One is the large number of infants being born to teen-age mothers of low socioeconomic status, which places their infants at risk from several aspects. Another influence is the proliferation of neonatal intensive care units, which some observers say are salvaging infants who are not normal. Whatever the reasons, there are estimates that one American family in ten now includes a child with a major developmental disability.[1]

The only modality available to address the developmental delays of most biologically high-risk and/or handicapped infants is the so-called "early intervention program," which is designed to stimulate development. Data are sparse, but the majority of parents appear to find early intervention programs supportive and helpful[2] in dealing with the "stress over time" of living with a handicapped child,[3] and there are studies indicating that the financial cost is offset by decreased need for special education services later in childhood.[4]

On the other hand, scientific data are lacking to prove conclusively that these programs achieve developmental enhancement for all of the medically diverse, biologically handicapped infants served.[5-8] Some writers fear that the interest and activities centered on the handicapped or high-risk infant may even promote false hope in the parents and delay their adaptation to the reality of the infant's limitations.[6]

How do physicians view these early intervention programs? We could find no published answers to that question, so we conducted a survey of Virginia physicians who treat these infants in an attempt to index their experience with early intervention programs and their attitudes toward them. We present here the results of that survey.

From the Department of Pediatrics (Dr. Shelton) and the Eastern Virginia Area Health Education Center (Mr. Johnson), Eastern Virginia Medical School, and the Children's Hospital of the King's Daughters (Miss Schneider). Dr. Shelton is now performing a residency in the Department of Physical Medicine and Rehabilitation, Eastern Virginia Medical School. Address correspondence to her at 601 Jones Street, Suffolk VA 23434.

Much of this material was presented at a joint meeting of the Community Living Association for the Mentally Retarded and the American Association for Mental Deficiency on May 3, 1984, in Virginia Beach.

Submitted 6-12-86.

Background

Approximately 3,000 infant Virginians were served by early intervention programs in 1985.[9] Their ages ranged from birth to 2 years. The number of available programs in 1984 was 59;[10] ten of these were located in urban areas, 39 in rural settings, and ten in mixed rural-urban areas. Funding was supplied by the State Department of Mental Health and Mental Retardation; patient fees; federal and local government monies; private contributions; and foundation grants.[11] The programs were usually housed in school buildings, community centers, hospitals, or churches.

Originally, early intervention programs were fashioned on the medical model and were headed by a pediatrician or orthopedist, but since the early 1970s they have been educational in orientation. In Virginia they are most commonly directed by an educator with a background in special or early child life education.[11] The staff may include a physical therapist, occupational therapist, speech therapist and perhaps a person trained in counseling families. Infants are assessed on entry with standard tools, commonly the Early Learning Accomplishment Profile, or E-LAP. Then the staff tailors a program to the infant's needs. The program does not necessarily respond to physician concerns and recommendations. It is always, however, conditioned by the availability of personnel.[11] Most early intervention programs in Virginia include parent support groups.[10]

Material and Methods

A 12-item, anonymous questionnaire was mailed to 533 pediatricians and family practitioners treating infants in the State of Virginia. A total of 223 completed and returned the questionnaire for a response rate of 42%. The received data were analyzed using the Statistical Package for the Social Sciences Computer Program.[12]

Results

Of the 232 respondents, 175 (75%) said they were in private practice; 46 (20%) indicated they were hospital-based or full-time academic physicians; 5% did not answer this question. In terms of age, 35% of the respondents were less than 40 years old; 65% were 40 or older.

Analysis of the geographical distribution of the polled physicians showed 31 located in Richmond, 34 in Fairfax City/County, and 25 in Norfolk; the remaining were distributed regionally as follows: Tidewater area 41, Central Virginia 33, Northern Virginia 32, and Southwest Virginia 27.[6]

Of the 175 physicians in private practice, 84% said they had referred patients; of the 46 hospital-based or academic respondents, 83% had referred (Table 1). A distinct disparity was found between age group and past referral, with 90% of physicians under 40 having referred as compared to 80% of the 40 or older respondents. While not statistically significant, this may indicate greater confidence in early intervention programs by the younger physicians than their older colleagues. We have observed that doctors in training at our medical school accept the input of multiple disciplines much more readily than their seniors.

Table 1. Comparison by Practice Type and Age Group of Physicians with Referral Histories.

	Yes	No	Total
Practice Type			
Private	147 (84%)	28 (16%)	175
Hospital-Based Academic	38 (83%)	8 (17%)	46
Age Group			
Under 40	73 (90%)	8 (10%)	81
40 or older	118 (80%)	30 (20%)	148

Most of the respondents (93%) said they believe the information they received from the early intervention program was valuable, and 94% felt that families received accurate information about their child's development from the programs.

The majority of respondents (92%) indicated that the level of expertise of program staff was appropriate to the services provided, while 30% noted that desired services, such as occupational therapy, were not available in their community's program. More than one-third of the respondents (36%) felt that information about the patient was inadequately communicated by staff to the patient's physician, but the majority (76%) approved the manner in which program personnel made referrals to specialists, i.e., first directing the patient back to the primary care provider for evaluation. Most (80%) also felt that discussion with the infant's family of information supplied by the patient's physician was handled appropriately, and 70% of the respondents indicated that patient/physician relationships were strengthened by infant intervention groups.

Of the 16% of responding physicians who had never referred a patient to an early intervention program, 78% were in private practice, and the same percentage fell into the 40 years or older age group. Reasons cited for not using the programs were: 1) The programs expend energy and resources on hopeless situations. 2) Access to the programs is difficult for patients. 3) Physicians lose control of their patients through referral to other resources. 4) Intervention programs teach what most parents know instinctively.

Discussion

Our results indicate that early intervention program acceptance and utilization by physicians who treat children in Virginia is widespread. Physician attitude toward such programs is generally favorable. Most physicians find communication by the early intervention programs largely adequate and the information valuable. However, significant numbers of physicians feel that information sharing could be improved. Concerns also exist among physicians, as they undoubtedly do in the infant intervention programs themselves, about services not provided but perceived as needed.

Only 70% of surveyed physicians feel these programs tend to strengthen the patient/physician relationship. Since handicapped children and their families greatly need support from their primary physician long after their participation in early intervention programs is over, all parties should work together to augment the ongoing patient/physician relationship.

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ABSTRACTS

These are abstracts of papers to be presented at the annual meeting of the Virginia Surgical Society on May 1-3 in Williamsburg. Dr. John W. Baker, Jr., is program chairman.

Major Hepatic Resection for Benign Disease. James P. Neifeld, MD. George A. Parker, MD, J. Shelton Horsley III, MD, and Walter Lawrence, Jr., MD, *Richmond.*

Major hepatic resections are infrequently performed operations with some mortality and high morbidity; most are performed for malignant tumors. Few large series have reported the results of elective major hepatic resections performed to treat benign masses. The purpose of this report is to describe our experience performing major hepatic resections for benign masses.

From 1980 through 1986 we performed 23 major resections for benign masses; 9 were for hemangiomas, 8 for congenital cysts, 3 for adenomas, 2 for abscess, and 1 for FNH. All patients with hemangiomas and congenital cysts were females; the age range was from 19 months to 71 years. Preoperative symptoms included pain (10 patients) and bleeding (2 patients); an asymptomatic mass was the reason for operation in 7 patients. Preoperative testing included computed tomographic scans and angiography. The correct diagnosis was suspected preoperatively in 8 of 9 hemangiomas, 5 of 5 cysts for whom the information was recorded, and 3 of the 6 other masses. The operations included 11 right hepatic lobectomies, 6 left lateral segmentectomies, 5 formal left hepatic lobectomies, and 1 extended left hepatic lobectomy. Complications requiring reoperation occurred in 3 patients: bleeding in 2 and subhepatic abscess in 1. There was no operative mortality; the median postoperative stay was 14 days.

These data demonstrate that major hepatic resection for symptomatic benign disease can be performed safely and, in fact, suggest that similar resections have much lower morbidity and mortality when performed for benign than for malignant disease. A benign diagnosis can usually be made prior to surgery.

Limited Resections for Lung Cancer. Lewis Wetstein, MD, and A. Brenner, RN, *Richmond.*

Patients with lung cancer are frequently inoperable because of poor pulmonary reserve. In some instances patients who cannot tolerate a pneumonectomy or lobectomy can tolerate a localized resection, i.e., wedge or segmental excision for cure. The purpose of the present study was to assess localized resection for patients with lung cancer.

Thirty consecutive patients with peripheral, ≤3 cm malignant lung lesions diagnosed by radiography and bronchoscopy underwent an exploratory thoracotomy. Mean age was 64.4 years and all patients had a one-second forced expiratory volume of ≥1.0 1/sec. All patients underwent a wedge resection of the lesion. After frozen histopathological sectioning revealed that the margins of the lesions were free of tumor, a completion lobectomy was performed. Fifteen (50%) were squamous cell carcinoma, 13 (43%) adenocarcinoma, and 2 (7%) were small cell carcinoma. Four (13%) of the patients had spread to local lymph nodes, 2 of these to the mediastinum. The latter 2 were treated with excision of the nodes and postoperative radiotherapy to the mediastinum. In none of the patients was tumor found in the residual resected specimen. Postoperative mortality (30 day) was 0, and morbidity was 18% including prolonged endotracheal intubation ≥72 hours., 3 patients (10%); persistent airleaks (≥72 hrs.), 3 patients (10%); atelectasis, 2

patients (7%); and wound infection, 1 patient (3%). Two year actuarial lifetable analysis was 72%.

In conclusion, wedge resection for lung cancer appears to be an acceptable alternative for localized lung cancer, especially in poor risk patients.

Role of Preoperative Arteriogram in Defining Treatment for Arterial Ischemia of the Lower Extremities. Irving Kron, MD, Gil Kingman, MD, Terry Flanagan, MD, Dan Clair, MD, James McCullough, MD, and Thomas Daniel, MD, *Charlottesville.*

Acute arterial ischemia can result from arterial emboli or acute thrombotic occlusion of a previously stenotic atherosclerotic vessel. The role of preoperative arteriography has not been well-defined in determining optimal surgical therapy for these limb-threatening events.

From July 1975-June 1984, 84 patients were surgically treated at the University of Virginia for acute lower extremity vascular occlusion of less than 48 hours duration (58% male; mean age 65; age range 38-90; 60% with documented cardiovascular disease; 35% with history of claudication). Exluded were all patients who had previous vascular reconstruction. Treatment was performed at the discretion of the operating surgeon. Preoperative angiography was performed in 23 (27%). Retrospective review of the angiograms revealed only 7 to be helpful in planning the operation, i.e., need for concomitant inflow procedures. All 7 either had absent femoral pulses or previous history of claudication. The other angiograms either revealed distal obstruction or total occlusion of the involved femoral artery—all of which could have been diagnosed at the time of embolectomy. There was no correlation between preoperative angiogram and limb-salvage rate or need for more extensive operative procedures. Preoperative angiography resulted in a significant delay in surgical treatment from onset of symptoms (20 hours vs 13 hours, $p < 0.05$). The overall limb-salvage rate was 75% at one year postoperatively. The 12-month survial was 67% with 16/29 (56%) deaths related to cardiovascular or cerebrovascular disease.

Acute arterial occlusion has a high one-year mortality and morbidity. Attention should be directed to early surgical intervention. Preoperative angiography should be performed only if a concomitant inflow procedure is considered.

Insulinoma: Diagnosis, Localization and Treatment. J. B. Hanks, MD, L. E. Rudolf, MD, and R. S. Jones, MD, *Charlottesville.*

From 1982 to 1986, seven insulinomas and one nonfunctioning islet cell tumor of the pancreas were treated surgically at the University of Virginia. Four males and four females had an average age of 30.1 yrs (range 12-57 yrs). All seven insulinoma patients had symptoms of confusion, dizziness and syncope for a mean of 17.8 mons (range 1-48 mons). The average preoperative values were glucose 38.1 mg/dl (range 25-56 mg/dl); serum insulin, 27.1 uU/ml (range 15-35 uU/ml); and c-peptide, 3.9 ng/ml (range 2.3-8.1 ng/ml). Arteriography was done in six patients and was helpful in three. CT scans in 4 patients were helpful only in one (nonfunctioning tumor with metastasis). One patient underwent selective portal venous sampling for insulin which was helpful, but not conclusive. Intraoperatively we used a "steady state" glucose infusion to estimate completeness of the resection. In 4 patients the preexcision mean glucose was 100.2 mg/dl (range 85-110 mg/dl), and postexcision it rose to a mean of 156.3 mg/dl (range 123-191 mg/dl). Of the 7 insulinoma patients, 5 had excision of a single adenoma, one had a distal pancreatectomy and one had a distal pancreatectomy plus a regional lymph node dissection (for metastasis). There was no operative mortality or postoperative complications. All patients were symptom free at followup from 6 months to 5 years.

We conclude that patients with an insulinoma can present with nonspecific signs and symptoms; hypoglycemia and hyperinsulinemia are diagnostic. Invasive radiologic localization procedures are not always helpful. Surgical excision is curative in those patients with benign disease.

Lung Cancer: Strategies for the Future. Joseph T. Mullen, MD, *Norfolk.*

Lung cancer is a disease of endemic proportions in the Western world. Its incidence has increased seven-fold since 1940, and it is now the most common cancer among men and women and certainly the most lethal. In 1984, 17% of all cancer cases reported in Virginia were lung cancer, 25% among males, 11% among females. The 5-year survival rate has remained dismally low when all stages and cell-types are considered together. The importance of accurately staging for lung cancer has become clearer as data has been accumulated about the cure rate of the disease following operation. Accurate staging and subsequent adoption of specific therapy is at present the only way to improve survival. Chest roentgenography, computerized tomography, cytologic examinations of sputum, bronchoscopy, mediastinoscopy and percutaneous aspiration biopsy are routinely used, with some

variations, in the diagnostic study of apparent lung cancer.

Prevention of lung cancer is an essential approach to the future. Although lung cancer may be associated with exposure to industrial hazards, the most important predisposing factor is cigarette smoking. Helping smokers to quit and persuading youngsters not to smoke are important stratagies for prevention.

Gastrointestinal Sarcomas: Analysis of Prognostic Factors. Patrick C. McGrath, MD, James P. Neifeld, MD, Walter Lawrence, Jr., MD, Saul Kay, MD, J. Shelton Horsley III, MD, and George A. Parker, MD, *Richmond.*

Management of 51 patients with primary gastrointestinal sarcomas at the Medical College of Virginia was reviewed to delineate their natural history and investigate the influence of histologic and treatment factors on prognosis. The most common signs and symptoms were abdominal pain (62%), gastrointestinal bleeding (40%), and/or abdominal mass (38%). The primary site was stomach in 50%, small bowel in 30%, colon-rectum in 15%, and esophagus in 5%. Virtually all the sarcomas were leiomyosarcomas. Distribution was uniform among the three histologic grades; however, 88% of Grade 1 tumors but only 35% of Grade 3 tumors could be completely resected. The 5-year survival was 75% for Grade 1 tumors, 16% for Grade 2 tumors, and 28% for Grade 3 tumors ($p = .0013$, Grade 1 vs. 2 and 3). Thirty of the 51 patients (59%) underwent curative resection with an operative morbidity of 24% and an operative mortality of 12%; at 5 years the disease-free survival was 58% and the overall survival was 63% (48% at 10 years). Eleven patients developed recurrent disease at a median interval of 2 years following complete tumor excision. Twenty-one patients (41%) underwent partial excision or biopsy only of their tumor with an operative morbidity of 28%, operative mortality of 8%, and median survival of only 9 months. Overall, patients whose tumor was confined to the site of origin had a 58% 5-year survival compared to 20% for those whose tumor had invaded adjacent organs ($p < .05$). If the tumor was <10 cm in size, the 5-year survial was 78%, significantly better than the 38% for tumors >10 cm ($p = .03$).

These data suggest that histologic grade, local invasiveness, size and extent of resection are the most important prognostic factors for patients with primary gastrointestinal sarcomas. Patients undergoing resection of all gross tumor, especially if it is well-differentiated and localized, have a good prognosis.

Primary Breast Reconstruction in Communities Without Plastic Surgeons. I. Kelman Cohen, MD, William Crutchley, MD, David M. Turner, MD, and Peter Brown, MD, *Richmond.*

Between October 1983 and May 1986 the senior author (IKC) has performed 55 primary breast reconstructions in collaboration with general surgeons at the Medical College of Virginia and in the greater Richmond area. To the best of our knowledge, however, primary reconstructions in communities without plastic surgeons have not been performed or offered routinely. As a pilot study, Dr. William Crutchley of Elizabeth City, North Carolina, was taught primary breast reconstruction by Drs. Brown and Cohen. Between January 7 1985 and December 1986, 6 primary breast reconstructions were performed by Dr. Crutchley in Elizabeth City using Radovan tissue expanders. After he had completed expansion, the patients were seen by the plastic surgeon (IKC) who exchanged the expander and performed reduction mammaplasty and/or ptosis correction, as needed, on the opposite breast. There were no major complications.

We conclude that women should not be denied primary breast reconstruction because a plastic surgeon is not available. Plastic surgeons should take on the responsibility of teaching general surgeons in rural communities the principles and practice of primary breast reconstruction to fulfill the needs of women treated for carcinoma of the breast.

Treatment of Biliary Obstruction Caused by Metastatic Tumors. Harry D. Bear, MD, and Mary Ann Turner, MD, *Richmond.*

During the past 8 years, 42 patients were admitted to the Medical Collge of Virginia Hospitals with obstructive jaundice caused by metastases to the liver or lymph nodes adjacent to the porta hepatis. The primary tumors were gallbladder (13), colorectal (11), gastric (5), lymphoma (4), breast (3), cervix (2), and lung, sarcoma, melanoma and esophagus (1 each). Palliative biliary decompression was established surgically in 11 patients, by percutaneous transhepatic biliary drainage (PTBD) in 26, and by both methods in 2. Three patients had no drainage procedure and are not included in the following analysis.

Early mortality occurred in 6 patients, and the median survivals (actuarial) for the remaining patients were 4.5 months for the surgical group (range, 2-21 months) and 9 months for the PTBD group

(range, 2-14 months). The mean predrainage serum bilirubin was 15.8, and the mean nadir postdrainage was 3.3 for the 33 surviving patients. Only one episode of cholangitis occurred after surgical drainage, while there were 17 such episodes after PTBD; however, 10 of these were in 2 patients and 16 of 22 survivors of PTBD had no cholangitis.

In conclusion, when patients develop jaundice as a manifestation of metastatic cancer, massive liver replacement may not be the cause. Useful palliation of biliary obstruction for prolonged periods can be achieved by either sugical or percutaneous decompression. In carefully selected, good-risk patients, surgical decompression may be preferable, particularly if operative palliation is indicated for other symptoms or if the diagnosis is in doubt. In other patients, especially those with a more limited life expectancy, PTBD is a reasonable alternative.

Autotransfusion in Postoperative Cardiac Surgical Patients. Paul T. Frantz, MD, *Roanoke*.

Improvements in blood conservation techniques during cardiac surgery have reduced the need for homologous blood transfusions. Reinfusion of shed mediastinal blood has recently been introduced as an adjunct in the management of patients after open heart surgery. At Roanoke Memorial Hospital the cardiac surgical service adopted a method of autotransfusion of mediastinal blood in January 1986. In order to determine the impact of this new technology on homologous blood transfusions a retrospective review of 196 patients was performed. One hundred twenty-three patients (Group 1) were managed without autotransfuion and 73 patients (Group 2) received shed mediastinal blood. Patients in Group 1 received 3.1 ± 3.0 units of banked blood compared with 1.8 ± 2.4 units for Group 2 ($p < 0.01$). Additionally 96% of patients in Group 1 received banked blood whereas 50% required transfusions in Group 2. Using this autotransfusion system 60% of shed mediastinal blood during the first 24 hours after surgery was reinfused. Among patients with postoperative hemorrhage autotransfused patients required 2.5 ± 2.8 units of banked blood compared to 4.9 ± 4.6 units for patients managed with homologous blood transfusions alone ($p = 0.03$). Two patients experienced mild hypotensive, febrile reactions during autotransfusion which were transient.

Based on these data we conclude that reinfusion of shed mediastinal blood appears to be a safe method of blood conservation which significantly reduces dependence on banked blood and plays an important role in managing postoperative bleeding.

Help for a troubled friend is only a phone call away.

If you suspect a colleague is experiencing problems with alcohol or drug abuse, don't contribute to the "conspiracy of silence," call The Medical Society of Virginia's Physicians' Health and Effectiveness Committee. A non-punitive approach through rehabilitation *is* an alternative. Your report is kept confidential. Ask for Lorraine McGehee at MSV headquarters, (804) 353-2721.

Will Osborn (left) was on the job for The Medical Society of Virginia when this picture was taken at the 1982 General Assembly. Shown with him is Del. Kenneth E. Calvert, Danville.

VIRGINIA MEDICAL EDITORIAL

Will Osburn

When Willard Chew Osburn, Jr., died on February 20, The Medical Society of Virginia lost a valued employee and the medical profession in Virginia lost a loyal friend. At the time of his death he was 61 years old and had worked for the Society for 16 years, most recently as director of communications.

Will was born in Baltimore and received a bachelor's degree from the University of Richmond in 1949. He served in the United States Navy in World War II and in Korea. He was a former scoutmaster and at the time of his death was unit commissioner for the Boys Scouts' Shawondassee district. He was a member of Kappa Alpha fraternity and Manakin Episcopal Church.

He is survived by his wife, Marthalea T. Osburn; a daughter, Mrs. Neill O. DeLaney, Mobile, Alabama; and a son, Willard C. Osburn III, Huntersville, North Carolina.

Will Osburn was gentle, cheerful, cooperative, and a very effective worker—an unbeatable combination. We shall miss him. E.L.K.,Jr.

Drab

Being drab has many virtues, and drabness has always been good to me. In grammar school we, the drab and the tone deaf, never were allowed to sing, but then we never had to take our homework home. We never starred in the school play, but we were too shy to bear it anyway. We were overlooked often, but that suited us since drab and shy go together. Oh, drab and shy that we were, we still had our fantasies but would have died had they occurred.

Being drab and shy has often saved me. Many years ago, when my airplane engine quit on takeoff at only 300 feet above ground—abruptly ending the flight in a small field—the press ignored it, and my reputation as a drab was saved. I have saved so much money by wearing drab that I can now afford my third motorcycle.

Yes, drabness has its advantages.

But my childhood fantasies endure. How I would like to be both colorful and extroverted, a frequent talk show interviewee. I would tell, subtly to be sure, how wonderful were my multitudinous talents, how totally beneficent I was, why everyone should come to my personally owned 250-bed outpatient clinic, ambulatory surgicenter, and emergency medical facility—equipped for all contingencies and ready for all emergencies from 7 AM to 9 PM, Monday through Friday, cash preferred. I would put all the current hucksters to shame with my wit and charm, my unquestionable sincerity, my boyish grin, and my carefully styled hair. I would hint that I was a confidant of the Governor and the President, while freely admitting that the Vice-President and I were old friends and golfing part-

ners going back to the time before we both made our second million.

Probably a majority of citizens are drab, shy, and introverted, but the world is safe from us drab people. We are too shy to unite.

HENRY S. CAMPELL, MD

Eye Care for the Elderly

VIRGINIA physicians are participating in a unique public service program inaugurated by the Foundation of the American Academy of Ophthalmology in January 1986. This voluntary program is designed to provide modern medical and surgical eye care to the nation's disadvantaged elderly at no out-of-pocket expense. The program promotes awareness, improves access and provides service.

The National Eye Care Project (NECP) opened by regions at six-week intervals beginning in the northwestern states and continued across the country until all areas had a program in operation by mid-July 1986. Academy members volunteered their services to supply the manpower necessary to facilitate this program, and funding of $3.5 million came entirely from the Academy, its members and the private sector, with no funds derived from the federal government.

In order to be eligible for this program, a patient must be 65 years of age or older, a legal citizen of the United States, financially needy, and not currently under the care of an ophthalmologist. By calling a toll-free number (1-800-222-EYES), the patient is put in touch with operators who screen for eligibility and then match the caller with the nearest participating ophthalmologist, whose office is notified of the match. Once the patient is seen, the ophthalmologist renders on-going care with no charge to the patient. If there is insurance, the physician may collect whatever is allowed.

To date 159,903 calls have been received nationwide, from which 40,782 referrals have been made to the 8,772 participating physicians throughout the United States. In Virginia, 3,305 calls have been received, resulting in 871 referrals to the 193 participating ophthalmologists since its inception here in May 1986.

This is the first time a medical specialty has organized a public service program of such magnitude. President Reagan has described it as "volunteerism at its finest." The Virginia Society of Ophthalmology and its participating members can be justly proud of their part in making this program a success.

THOMAS P. STRATFORD, MD
201 North Hamilton Street
Richmond VA 23221

Immunization for Adults

IT is recognized that immunizations provide the highest cost-benefit ratio in medicine. However, when we think of immunizations, it is usually in the context of their utilization for children.

C. Everett Koop, MD, Surgeon General of the United States Public Health Service, in a recent press release has called attention to the need for immunization in adults. He points out that there are seven diseases for which millions of Americans should be immunized: influenza, pneumococcal disease, hepatitis B, tetanus, diphtheria, measles, and rubella.

Two of these, influenza and pneumococcal disease, pose a particular problem for the elderly and those with chronic heart or lung disease. Nearly every winter sees an influenza epidemic, with thousands of deaths. More than 80% of these deaths occur among persons 65 years or older. Pneumococcal infections are important causes of illness and death in the same population. The fatality rate in those 60 years of age and older is 25%–35%.

Hepatitis B occurs in all ages, but about 85% of cases occur in persons 20 years of age or older. Health care professionals are at particular risk. The Centers for Disease Control estimates that there are 180,000 or more cases of hepatitis in adults in the United States each year.

Immunization is available for each of the seven diseases. It is incumbent upon the medical profession to use them.

E.L.K., JR.

VIRGINIA MEDICAL OBITUARY

Francis L. Byers, MD

Dr. Francis L. Byers, who opened his general practice in Harrisonburg in 1934, died January 28 at his Harrisonburg home. He was 83 years old.

Born in 1903 in Lacey Spring, Dr. Byers moved with his family to Harrisonburg when he was 6 years old. He graduated from the Harrisonburg High School, then entered the University of Virginia, continuing on through the School of Medicine. He then trained in Birmingham, Alabama, and at his alma mater. In 1976 he suffered a stroke and had been ill since then.

Dr. Byers' membership in the Rockingham County Medical Society, The Medical Society of Virginia and the American Medical Association spanned 54 years.

Memoir of Bruce Morton 1900-1985

By William R. Sandusky, MD

Charles Bruce Morton II died in Sarasota, Florida, on December 13, 1985, in his 85th year. The son of Dora Ashby Moncure and the Rev. William Jackson Morton, he was born in Tappahannock, Virginia, on January 10, 1900.

His was a long and distinguished association with his native Virginia, its educational institutions and its people. In September 1916 he entered the University of Virginia and within six years he was graduated doctor of medicine, having in the interim received the baccalaurate degree. Bruce, as he was affectionately known to his many friends, was an honor student both in college and in medical school. He was the Thomas Fortune Ryan Scholar during the period 1918-21 and later was honored by membership in the Raven Society, Alpha Omega Alpha and Sigma Xi. Upon graduation he began a two-year medical and surgical internship at St. Luke's Hospital in New York, followed by a fellowship in surgery at the Mayo Clinic. The period of preparation for academic surgery culminated in a first assistantship in experimental surgery under Dr. Frank C. Mann of that institution.

In 1927, at the age of 27, he was appointed assistant professor of surgery and gynecology at the University of Virginia and succeeded to a full professorship nine years later. He served continuously and with extraordinary distinction until his retirement in June 1970. The opportunities and the demands of this 43-year period provided outlet for his abundant and exceptional talent: a busy and successful clinical practice, the training of interns and residents, leadership in many professional societies, the preparation of papers on an incredible variety of clinical subjects, and the acting chairmanship of the department. All of these opportunities and challenges Bruce Morton met head on, not only with his characteristic skill and vigor but also with a penchant for excellence and an intolerance of mediocrity.

It is immediately apparent that Dr. Morton's professional life spans some of the most productive and exciting years in the history of surgery. More importantly, he contributed in no small measure to the progress which marked this period, especially by the outstanding work done in Mann's laboratory on the etiology of peptic ulcer. This was recognized immediately with the John Horsley Memorial Prize for research in surgery and later with the 1928 Sigma Xi Award.

As a crowning accolade, following retirement friends and colleagues made possible the establishment in his honor of the C. Bruce Morton II Professorship of Surgery at the University of Virginia School of Medicine.

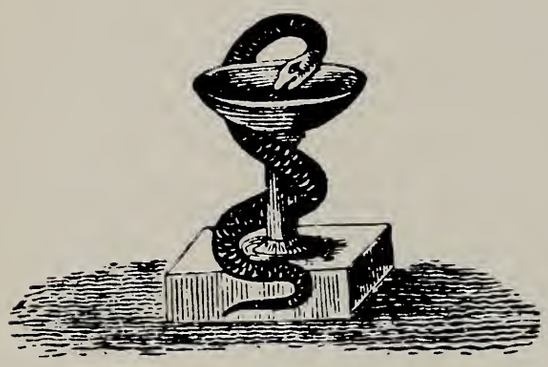
James A. Smith, MD

Dr. James Alexander Smith, retired pathologist, died February 16 at his home in Richmond at the age of 76. He was a graduate of the University of Pittsburgh School of Medicine and trained at hospitals in Pennsylvania and Louisiana.

Dr. Smith worked for nearly 30 years with the United States Public Health Service in New Orleans, Baltimore, Boston and New York, and served as medical director of the Alaska Native Service from 1944 to 1947. He came to Richmond in 1965 and was an associate pathologist for Johnston-

Willis Hospital, health director for Henrico County, and a consultant for the State Health Department. He retired in 1983 after suffering a stroke.

A member of the Richmond Academy of Medicine, Dr. Smith belonged also to The Medical Society of Virginia, American Medical Association, Military Order of World Wars, International Academy of Pathology, College of American Pathologists, American Society of Clinical Pathologists, and American Association of Pathology and Bacteriology.



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TORT REFORM

About the cover **In the chambers of the Virginia Senate, the electronic voting board flashes passage of House Bill 1216.** *For this exclusive picture, Sen. Clancy Holland negotiated on-site permission and the services of Senate computer technician Charles S. Bowen. Photographer Don Pierce caught the image with a Nikon F-3 camera.*

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Dr. Richard L. Fields (left) talks with Gov. Gerald L. Baliles at a party for Virginia's legislators given by VaMPAC at the Jefferson-Sheraton Hotel in Richmond on the eve of the "veto session" that marked the close of the 1987 General Assembly.

MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

SOME DIFFERENCES OF OPINION

Virginia's legislators saw the passage of the MSV-created injured infants act as a bravura lobbying performance by a group lately come to politicking (see Clancy Holland's praise on page 292), but there were pockets of physicians over the state who did not stand up and cheer.

For starters, a lot of obstetricians got the impression that participation in the program would be compulsory. Not true. Participation is voluntary, as Sandy Kramer's summary of the act explains on page 285.

Then there was a difference of obstetrical opinion as to the act's narrow definition of qualifying injury. "There's no such baby," said some. ("I've seen babies like that," countered others.)

The $5,000 participation price tag was a sore point for some ob/gyns, one of whom wrote to MSV President Dick Fields, "I personally do not feel that I should have to finance a fund for such a situation when it is quite obvious that the State of Virginia taxpayers through the Virginia Health Department should be able to take care of this problem."

The tab of $250 levied on all other physicians brought objections, too. "This malpractice situation is a societal problem," said one MSV member. "Why should doctors be singled out for funding?"

The Medical Society of Virginia's leadership didn't like the funding mechanism, either, but it was a pill that had to be swallowed, says Dr. Fields on page 288; he also describes how liability insurers were tapped to share the funding equation.

As for the "societal problem" plaint, which was voiced by many physicians, "They're right," says Larry Framme, chief lobbyist and author of this issue's lead article. "It is a societal problem. But it's an acute and immediate problem, and this was the only way to handle it immediately. There was just no way we could have gotten state funds this year.

"Down the road, there may be another way to fund it." --A.G.

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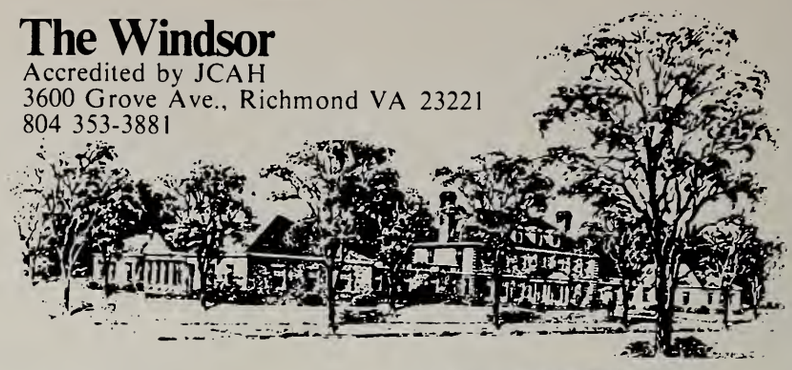

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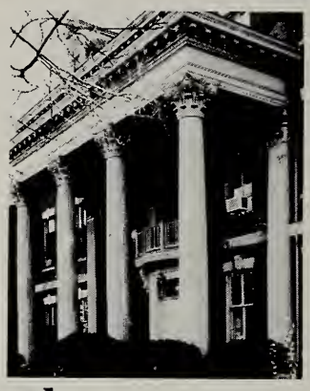

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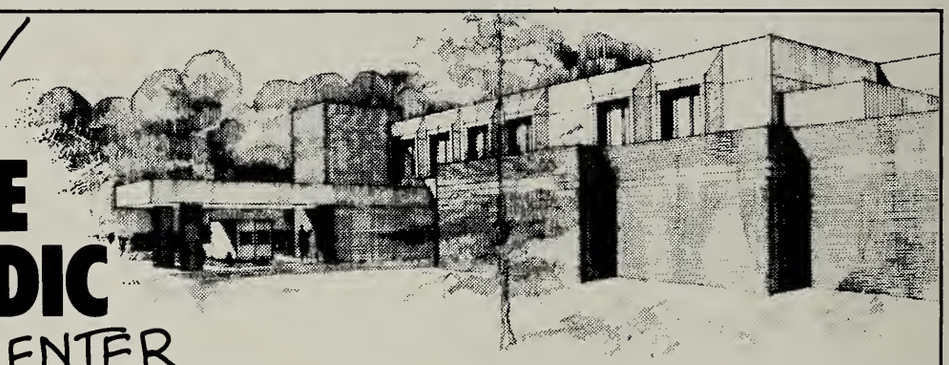

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LETTERS TO THE EDITOR

Another Sandoz award for Va Med

Congratulations! VIRGINIA MEDICAL has been awarded a Special Award in the category of State Medical Journals in the 12th annual medical journalism competition conducted by Sandoz Pharmaceuticals. The awards are for outstanding design and editorial qualities.

Can a Sandoz representative present the prize—a check for $250 and a certificate—at The Medical Society of Virginia's annual meeting or some other occasion?

Thank you for entering the competition. Best wishes for continued success.

Craig D. Burrell, MD

Vice President for External Affairs
Sandoz Pharmaceuticals Corporation
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They take strong exception to "irresponsible statements"

We are writing this letter in reference to the October 1986 issue of VIRGINIA MEDICAL. A news article in the Medibytes section[1] states that an MSV councilor framed the following comment: "There is no doubt but that peer review is raising the competency level of Virginia physicians." We take strong exception to that statement. We have serious doubts as to whether peer review, as it is presently being performed under the Medical Society of Virginia Review Organization mandated by HCFA regulations, increases the quality of medical care at all. In fact, we believe that there is a good chance that just the opposite is taking place.

In the same issue, Dr. Robert A. Morton states that "to date the MSVRO has found that 99.9% of Virginia physicians treating Medicare patients have provided care that meets professionally recognized standards of quality (as defined by HCFA and MSVRO). We deal with the rare exception, not the general rule, of Virginia's medical practice."[2] Realizing this, we find it likely that a bureaucratic system such as we see in place in Virginia at this time may actually be going a long way to decreasing the quality of care rendered to our Medicare patients.

It is not unreasonable to surmise that many of the bureaucratic regulations, the potential of case denials, and the potential of sanctions tend to frustrate the physician and turn his/her attention away from the direct care of the patient. Burdened with these unnecessary anxieties, physicians are going about the day-to-day business of patient care. It is reasonable to assume that this, opposed to enhancing the quality of medical care, detracts from it. We all know that the practice of medicine requires unhindered, total attention to the needs of our patients. Anything that stands in the way of that attention encumbers the physician's ability to treat the patient optimally. In order to find one-tenth of 1% of physicians providing care which does not meet professionally recognized standards, it is illogical that we should encumber the remaining physicians providing good quality care with a maze of bureaucratic busywork and other indignities.

Additionally, we wish to point out that we disagree with a statement made by Dr. Morton in his article that "good quality medical care is the most economical care in the long run." We need not elaborate our reasons for disagreement regarding this statement. We are all interested in providing

excellent quality medical care. That does not always come cheap and one should not be so self-righteous as to state that it does.

In conclusion, we note printed adjacent to Dr. Morton's article these words of William C. Felch, MD: "The profession needs to take a leadership position in the peer review arena, a position it once held and cherished." We, the undersigned Richmond physicians, believe this to be true. We also believe that an important step in taking this leadership is not to be making irresponsible statements in our medical journals.

Howard F. Faunce III, MD
L. Daniel Crooks, MD
Ray H. Smith, MD
James A. Shield, Jr., MD
Cullen B. Rivers, MD
Gerald W. Atkinson, MD
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Daniel D. Talley, MD
John L. Thornton, MD
Rudolf B. Wenleder, MD
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Felice Archuleta, MD
Ronald E. Whitley, MD

1. AG. Membership, liability, peer review occupy MSV Council. Va Med 1986;113:573-576
2. Morton RA. Peer review in Virginia. Va Med 1986;113:584-586

Dr. Morton replies: There is always room for disagreement among well-meaning individuals. VIRGINIA MEDICAL serves the important function of presenting differing opinions.

It is the province of practicing physicians to define the professionally recognized standards of care as they pertain to quality issues. To those physicians who have difficulty perceiving that the MSVRO can effect beneficial change when quality of care problems are identified, an open invitation is extended to participate in the activities of the MSVRO review committees.

The bureaucratic busywork prescribed by the Health Care Financing Administration is deplorable, expensive, and may detract from physician/patient care activities. The MSVRO, along with other PPOs, continues to address the problem of bureaucratic meddling by presentations to the Congress and the Administration. Influence on government agencies has been less than satisfactory, though occasionally small victories are won. Changing the attitudes of government officials is an inherently slow process, but the PPOs, with their access to these officials, are at least in a position of representing physician concerned about government-financed and -regulated health care. Assistance would be welcome.

Abbot L. Granoff, M.D.

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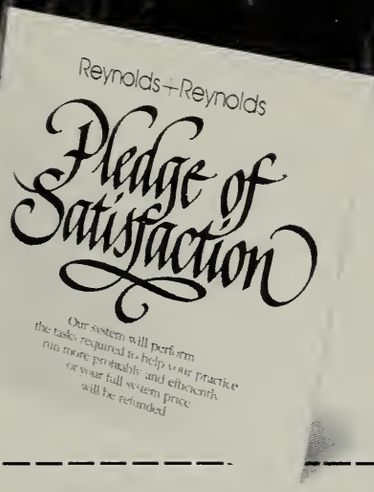

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VIRGINIA MEDICAL
MAY 1987

Cinderella: The Story of HB1216

"In a step that may hold significant consequences for the future of liability claims, the power of the trial lawyers was dented and a framework for resolution that avoids the 'roll of the dice' of a jury was built."

by Lawrence H. Framme III

No one gave it a chance, but it became the Cinderella of the Session.

The story of House Bill 1216, the Birth-Related Neurological Injury Compensation Act, began with the malpractice insurance crisis that has touched all Virginia physicians. Sharp increases in premiums and decreases in insurance availability had been developing as problems for some time. The problems became a crisis late last year when several bombshells rocked the medical community. In rapid succession, St. Paul's Fire and Marine, a major medical malpractice carrier in Virginia, announced a national moratorium on new medical malpractice business. Pennsylvania Hospital Insurance Company, PHICO, said it would not renew most of its Virginia physician insureds. With this one act alone, more than 1,100 Virginia physicians, including more than 140 obstetricians, learned that they would have to find new carriers. The Virginia Insurance Reciprocal suspended the writing of new obstetrical malpractice coverage. The crisis embraced everyone. The obstetricians were simply the first to have the door slammed in their faces.

The crisis quickly affected the expectant mothers of the Commonwealth. Several obstetricians stopped delivering babies and limited their practice to gynecology. Others found they could continue only by abandoning their current practice and either joining an existing insured group or accepting a hospital's offer of insurance—with the restrictive agreements attached to the offer. Others foresaw that they could continue to practice obstetrics only by reducing or eliminating deliveries of indigent or Medicaid mothers. For a profession dedicated to available and

Larry Framme was a chief lobbyist for The Medical Society of Virginia at the General Assembly's session early this year. He is a partner in the Richmond law firm of Mezzullo, McCandlish & Framme and is chairman of the Democratic Party of Virginia.

quality obstetrical care, many of these alternatives were simply unacceptable. Without prompt relief, obstetricians—and shortly, other specialists—would have to bow to the practice limitations that the malpractice insurance crisis was forcing on them.

The Medical Society of Virginia had for several years studied the emerging insurance crisis and suggested the beginnings of solutions to the Virginia General Assembly and others. The bombshells of late 1986 made immediate action by the 1987 General Assembly session an absolute necessity. With that in mind, the Society turned to Ron Davis and his Professional Liability Committee.

From the Society's prior work, the Professional Liability Committee knew that their options were limited. General reform of the tort system was badly needed. Several reform proposals were going to be presented to the 1987 legislative session as a result of the pre-session work of a joint legislative committee and Virginians for Law Reform, a coalition of which the Society is a member. Passage of these general measures was uncertain. In any event, none would solve the obstetrical insurance availability problem that had become so acute.

A Physician's Joint Underwriting Association had been organized and began operating in November 1986, but its 100%-assessibility provisions and extremely high premiums made it oppressive. It was generally agreed as well that the JUA was a bandaid measure designed only to bridge a short term availability crisis. It did not address the underlying systemic problem. Requiring malpractice insurers operating in the Commonwealth to write coverage for obstetricians would, in all probability, chase the few remaining malpractice carriers from the state. Also, political realities were that a bill mandating coverage would not be passed by the General Assembly.

Could new malpractice carriers be lured into the Virginia market? Given the pressures that were forcing the existing carriers to increase premiums and limit availability, the uncertainty of general tort reform, and the national nature of the insurance crisis, the prospects for this seemed dim, indeed. The newest carrier in the Virginia market, Medical Protective of Indiana, would write obstetricians only to a liability limit of $200,000.

There seemed only one solution, and it was a long shot: Bring the existing Virginia carriers back into the market voluntarily.

With that in mind, the Committee approached the Virginia Insurance Reciprocal and put a question to them, "What will it take to get you back into the obstetrical insurance market?" The answer: "Take the 'bad babies' out of the tort system. Reduce the uncertainty and unpredictability of the liability risk attached to the delivery of profoundly injured babies."

That answer, simple enough on its face, prompted the drafting of House Bill 1216, a unique approach to the creation of a more predictable obstetrical liability climate. House Bill 1216 creates a compensation system that focuses on the needs of injured patients; it is a system to eliminate 1) years-long litigation over "fault"; and 2) the uncertainties in compensation that result when decisions are laid before a lay jury understandably sympathetic to a profoundly ill child.

The Reciprocal's answer raised many more questions. If profoundly injured infants were to be taken out of the tort system, how would

HOUSE BILL 1216
VIRGINIA BIRTH-RELATED
NEUROLOGICAL INJURY COMPENSATION ACT

HB1216 creates a program similar to workers' compensation to assure lifetime care of infants with severe neurological injuries.

Criteria. 1) Definition captures only profoundly injured infants. 2) Participating obstetrician must be present at birth and birth must occur in participating hospital.

Process. 1) Claim is filed with State Industrial Commission, with only claimant and program officials party to the hearing. 2) Every claim is reviewed by panel of physicians, one of whom must be available to testify at hearing. 3) Claim is automatically referred to licensing agencies of physicians and hospitals for assessment of quality of care.

Funding. 1) Participating obstetricians assessed $5,000 annually. All other physicians, with certain exemptions, assessed $250 annually. 2) Participating hospitals assessed $50 per delivery, subject to maximum $150,000. 3) Based on actual experience of fund, liability insurers a) must contribute if State Corporation Commission deems it necessary and b) are subject to cap of one-fourth of 1% of net direct premiums written. 4) Commission monitors fund and notifies General Assembly leadership and involved agencies if assessments seem insufficient for future.

Additional benefit. Participating obstetricians and hospitals must agree to help provide care to Medicaid and indigent patients.

—Sandra L. Kramer

they be compensated? If medical fault was no longer to be a factor in compensation, what was going to determine it? Who would pay the compensation and how much? Could the compensation be fair, yet affordable? How would quality of practice be assured? Would the obstetricians, given some protection from tort liability, be willing to help solve the problems of indigent and Medicaid deliveries faced by the Commonwealth? Could the 1987 General Assembly be convinced of the acuteness of the crisis and its drastic effects upon obstetrical care in Virginia? Would the General Assembly really consider a new and unique approach to the problem in the so-called "short session?" Who would lead the fight?

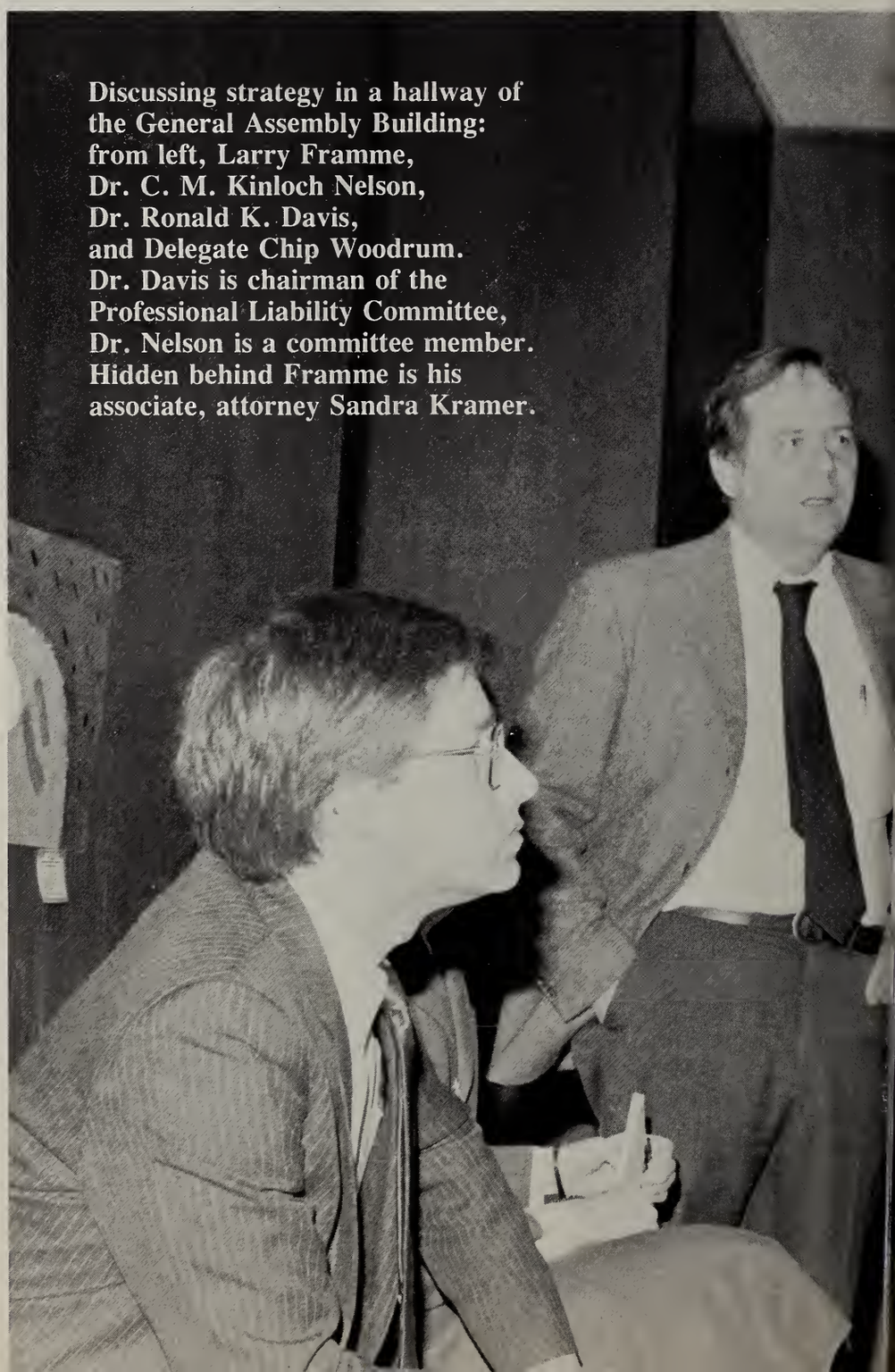
With these questions unanswered, the prospects for a solution seemed bleak. It was early December and the opening of the legislative session was but a month away.

The Committee began drafting a bill.

IT HAD to start from scratch. No one else had found a solution. In the entire nation, there was no model system to refer to. Drafting sessions were long and the drafts and redrafts seemed endless. Various medical specialties had to be consulted and legal authorities as well, including Prof. Jeffrey O'Connell of the University of Virginia School of Law, a nationally recognized expert in the liability crisis. The Reciprocal and the Virginia Hospital Association began working closely with the Committee. Ideas differed, sometimes greatly. At times, patience was short, but the time to draft a bill was even shorter.

The so-called "bad babies" had to be removed from the tort system. If the definition was too narrow, none would be removed and the new system would fail. If the definition were drawn too broadly, then too many infants would be included. The system could not afford to compensate them all. After extensive discussion, an actuarial study and a few false starts, it was determined that children with a hypoxic or mechanical injury caused during labor or delivery born permanently aphasic, nonambulatory, incontinent and needing assistance in all phases of daily living satisfied the needs of both the insurer and of affordability. These children, an estimated 40 born per year, would receive necessary rehabilitation, custodial care and some other expenses for life as they accrued. Public and private collateral payments would be netted out from the award. Later, a wage component was added, payable after the child had reached age 18.

An adjudication system was needed for disputed claims. With time short a new adjudicative body could not be created. Enter the Industrial Commission of Virginia. Through its administration of the Workman's Compensation Act, this body had extensive experience in hearing and understanding medi-



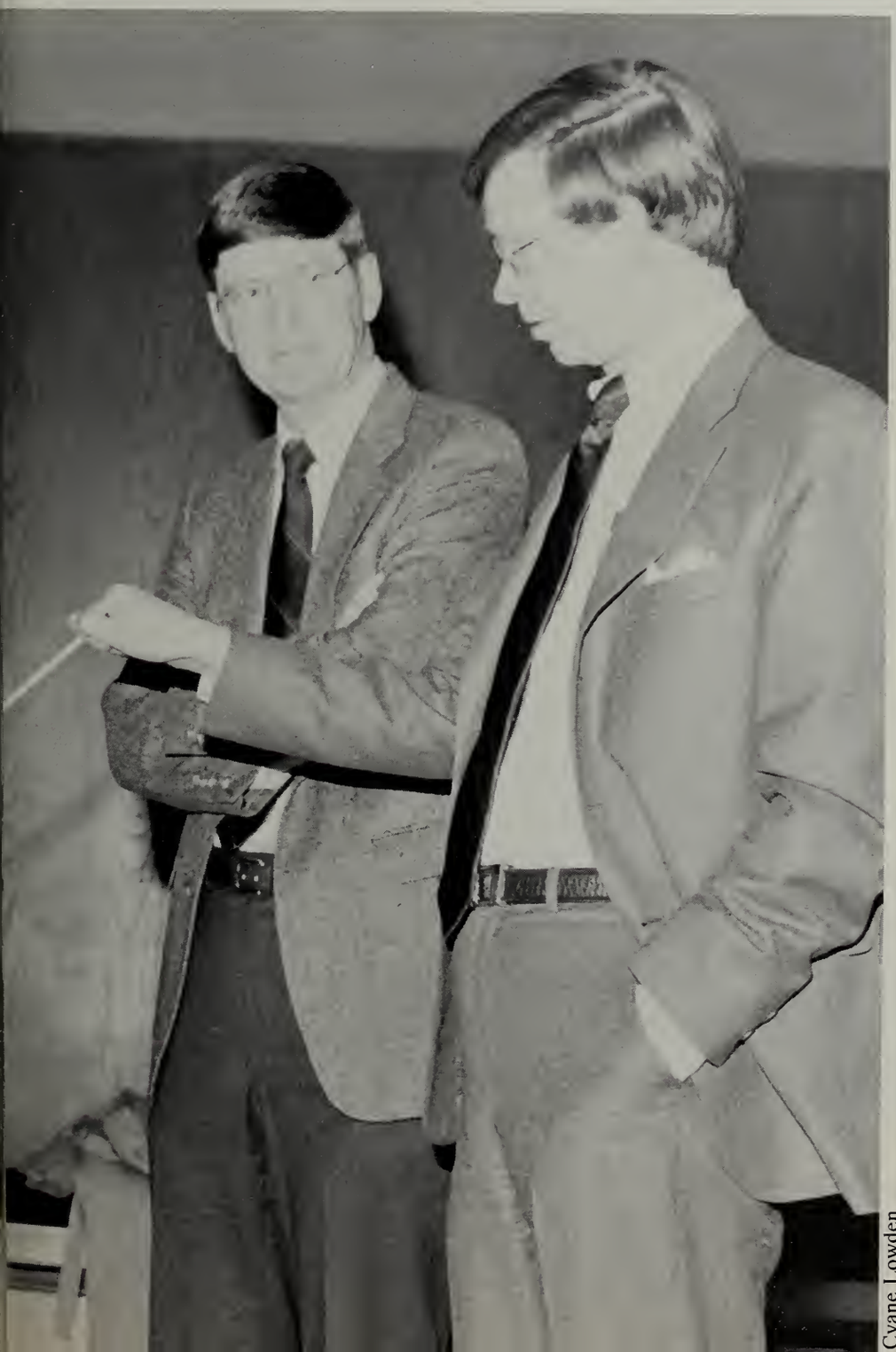
Discussing strategy in a hallway of the General Assembly Building: from left, Larry Framme, Dr. C. M. Kinloch Nelson, Dr. Ronald K. Davis, and Delegate Chip Woodrum. Dr. Davis is chairman of the Professional Liability Committee, Dr. Nelson is a committee member. Hidden behind Framme is his associate, attorney Sandra Kramer.

cal evidence and making monetary awards. After discussion with the Commission it was clear that it could handle the relatively small caseload increase that the act would carry.

The biggest question remained. Who would pay the awards? So many of the problems associated with the profoundly injured infant have little to do with malpractice liability. While some of these injuries are the result of medical negligence, most are unavoidable. The proposed system would pay regardless of fault. Initial thoughts centered on the State's general fund as the most logical source. Political realities intervened.

The 1987 legislative session was a short session. The Commonwealth budgets biennielly. The next budget would not be presented until 1988. Only minor budget amendments would be considered this year. Moreover, much of the speculation about the upcoming session's activities focused on how little funding would be available for anything. General-fund financing was out of the question this year. Other sources would have to be found.

More discussion ensued. Finally, a framework of assessments emerged. Obstetricians and hospitals with obstetrical beds who choose to participate in the system would be required to pay. They benefited most directly from it. Liability and accident and health insurers had a connection with the problem as well. Moreover, with tens of thousands of insureds in Virginia, they had the ability to spread assessments across a very broad base. A consensus developed then that a combination of assessments on those most closely associated with the problem and insurers who had an interest was the only practical way to finance the compensation program.



Cyane Lowden

Even with the definition of the injury, the adjudicative process and the funding mechanism resolved, other drafting problems remained. Politically, the obstetricians affected would have to be willing to "put back into the system" something more than money. With the assistance of the Commissioner of Health, a framework for participation of obstetricians in the development of a plan for indigent and Medicaid deliveries emerged.

Assurance of continued quality care was important. While the profession knew that the diversion of a few cases a year from the tort system would not reduce the quality of obstetrical care, the opponents' potential argument to the contrary had to be countered. To enhance care and to meet this argument, a referral of all claims under the system to the Board of Medicine for review was included in the draft. A similar referral to the Department of Health of participating hospitals was included as well.

One major question remained. Was the system to be voluntary or mandatory for all obstetricians? After considerable debate, it became apparent that there was no way to draft a mandatory system. What emerged was a voluntary sys-

The Money

As it first passed the House of Delegates, the Virginia Birth-Related Neurological Injury Compensation Act established a funding program that excluded insurance carriers and assessed hospitals $50 per delivery, obstetricians $5,000 per year, all other physicians $1,000 per year, and trial attorneys $1,000 per year. This formula was totally unacceptable to The Medical Society of Virginia's Council, and we made it clear we would not accept it—but it was very important that we keep faith with the senators and delegates who were supporting our effort.

The compromise we finally had to accept and which was adopted by the General Assembly retained the delivery charge for hospitals and the fee for obs, reduced the assessment of other physicians by 75%, and brought liability carriers back into the equation. Obviously, this is not an ideal formula, but when you look at this legislation as part of the amazing list of positive reforms enacted at this session, I think it is quite clear that the overall impact will be a climate offering great hope for a stabilization of liability rates and ultimately, perhaps, some rollback.

RICHARD L. FIELDS, MD, President,
The Medical Society of Virginia

tem in which the protections and benefits of the system would be available only to obstetricians and hospitals who chose to participate. In order to encourage participation, no birth would be covered by the system unless the delivery occurred in a participating hospital, with a participating physician present. "Checks and balances" encouraging participation were built into the bill.

By the end of December and after extensive work the general framework of the bill was completed.

THE NEXT major hurdle: to find a patron in the General Assembly who would recognize the problem, appreciate the solution and fight tirelessly for continuation of quality and available obstetrical care in Virginia.

On a snowy January 2, two Society representatives journeyed to Roanoke to sit down with Del. Clifton A. "Chip" Woodrum. Chip Woodrum is a fighter. He is also one of the Assembly's most knowledgeable members in the area of medical liability coverage. For two years Delegate Woodrum chaired a joint legislative subcommittee that studied Virginia's malpractice insurance crisis. His study recognized the problems, but learned that solutions were difficult to find.

The proposed bill was laid before Delegate Woodrum. He was already thoroughly familiar with the problem. He quickly recognized the proposed bill as unique, and, if it carried the commitment of an insurer to return to the market, held the promise of continuing available and quality obstetrical care to hundreds, even thousands, of Virginia mothers-to-be. Delegate Woodrum agreed to be its patron.

With Chip Woodrum as patron, the first and hardest, battle for the bill would take place in the House of Delegates. In the past the House has been the graveyard of much tort reform legislation. While the most difficult fight was expected in the House, the Senate could not be neglected.

For the past year Senator William F. Parkerson, Jr., of Henrico County had chaired the joint legislative committee reviewing the need for overall tort reform. His committee had already prepared a package of recommendations for the 1987 Session. The acute crisis in obstetrical coverage had emerged too late for extended consideration in the Parkerson committee. However, after review of Delegate Woodrum's bill, Senator Parkerson, despite the work to which he was already committed on his committee's proposals, agreed to help support the Injured Infants' Bill in the Senate.

More drafting changes occurred over the ensuing two weeks as the bill was fine-tuned before introduction. On January 13, 1987, the bill was filed. Through Chip's work in the House and Bill Parkerson's in the Senate, it carried an impressive list of co-patrons, including the Senate Majority Leader, Hunter Andrews, Commerce and Labor Committee Chairman William E. Fears, and Senator Wiley Mitchell, who had spent several years studying the malpractice insurance crisis. In the House, Dels. J. Samuel Glasscock, George A. Heilig, Jr., and Mary A. Marshall were key co-patrons whose voices are among those most often listened to in health affairs at the Capitol.

THE BILL was referred to the House Committee on Corporations, Insurance and Banking. Chaired by one of the House's most influential members, Majority Leader Thomas A. Moss of Norfolk, CIB has been the battleground for major insurance legislation. It is a particularly knowledgeable committee.

Recognizing the bill as an unique approach to a serious problem, Chairman Moss referred the bill to a subcommittee for hearings. The subcommittee, chaired by Del. George Heilig of Norfolk, included

Dels. V. Thomas Forehand, Jr., of Chesapeake, Frank D. Hargrove of Hanover, William T. Wilson of Covington, and Bernard S. Cohen of Alexandria. Delegate Cohen was expected to be the most outspoken opponent of the bill.

The subcommittee hearing promised to be well-attended and the debate highly contested. The promise was fulfilled. Grassroots support from Virginia physicians poured into the subcommittee by telephone and letter. In the hearing, testimony and debate raged for more than two hours. The Virginia Trial Lawyers Association and the insurance industry, an odd alliance, opposed the bill. They questioned the definition, the funding and the equity. Delegate Woodrum, with witnesses from The Medical Society of Virginia, reviewed in detail the crisis in available and quality obstetrical care and how and why the bill could help. Perhaps most importantly, the subcommittee learned of the commitment of the Virginia Insurance Reciprocal to reenter the obstetrical malpractice insurance market if the bill became law. While the parties to the debate disagreed on many issues, all were forced to agree on the existence of a real crisis facing obstetricians. Even the bill's most ardent opponents admitted that something must be done to solve this problem.

After long debate, the subcommittee remained concerned about procedural aspects of the bill. It recommended that it be referred to the House Courts of Justice Committee. Such a referral to one of the House's busiest committees could be the death of the bill. The full CIB committee had to be convinced to report the bill directly to the House floor.

During the full CIB committee's hearing, interest in the bill remained high and grassroots support continued to come, but once again the insurers and the plaintiff's lawyers, now joined by the Virginia Manufacturers Association, tore into the bill. Chip Woodrum was equally energetic in his defense. For two hours the debate seesawed back and forth; then the committee members themselves began to debate. Delegates Heilig and Hargrove spoke forcefully for the Bill. Delegate Cohen attacked it. Finally, the committee decided against rereferral and moved to the merits of the bill. The vote was not close. By a vote of 11 to 4 (with 4 abstentions) the committee voted to report the bill favorably to the House.

A key battle had been won, but a broader battle remained. Before, lobbying had been concentrated on the relatively few members of the subcommittee and the CIB Committee. Now, each member of the House, all 100, had to be approached and a relatively complex bill explained to them. Information packets were prepared, calls were made, and every effort made to be sure that each House member understood the bill.

On the evening of February 8, House debate began on the bill. It continued into a second day. Opponents tried to pick the bill to death. Amendment after amendment was offered in order to either broaden the bill to the point that it became unacceptable to the patron or to tire the members in their consideration of it. Some amendments were adopted. Some failed.

Influential members of the House felt strongly that all physicians should help fund the program. An amendment requiring each licensed physician in the Commonwealth to pay $1,000 a year into the compensation fund was adopted. Others believed that trial lawyers should contribute an equal amount and that insurers should be relieved of a responsibility to contribute. In a key voice vote, an amendment assessing each Virginia trial lawyer $1,000 a year passed. Simultaneously with this amendment debate was closed on the bill, and it was placed before the House for passage. With the assessment on lawyers and doctors (but none on insurers), many

The Breakthroughs

The Birth-Related Neurological Injury Act takes these giant steps:

1) Looks toward a no-fault system, one that separates the issue of compensation from the issue of negligence.

2) Takes the decision as to whether an infant has a compensable injury away from lay-jurors and places it in the hands of an experienced agency.

3) Provides prompt and proper compensation for those with compensable injuries.

4) Pays actual medical expenses, net of collateral sources, and a cost-of-living component payable from the age of 18.

5) Does not pay a pain and suffering component, punitive damages, or contingency fees (beyond a reasonable attorney's fee set by the agency).

6) Pays as expenses are incurred, rather than in a lump sum.

7) Creates societal participation in the funding of the program through an assessment on all liability insurers.

—James L. Ghaphery, MD

thought the bill would die, but sometimes momentum builds and the need for a solution to a problem becomes so great that conventional legislative reaction fails. On a recorded vote with many of the Assembly's lawyer-members abstaining, the bill as amended was reported from the House by a vote of 55 to 26. The biggest hurdle in the process had now been cleared. The House had passed the bill with its basic concept intact. The funding, however, was a major problem.

The bill faced a friendlier body in the Senate. The Senate Commerce and Labor Committee, to which the bill was referred, was familiar with much of the Parkerson Committee package and was exceptionally knowledgeable on the need for tort reform. With the support of key Commerce and Labor members, including its chairman, Bill Fears, and Special Subcommittee members Richard Holland and Frank Nolen, the Committee eliminated the assessment on trial lawyers. It was known that this assessment could not survive a second vote in the House and would kill the bill upon its return there. The Committee also reduced the assessment on all physicians from $1,000 to $250 a year. Exclusions for retirees and residents and extensions for others were placed in the bill. In the friendlier atmosphere of Senate Commerce and Labor, the bill was amended to a solid form which, although not the ideal bill from The Medical Society of Virginia's point of view, was acceptable and continued to retain the commitment of the Virginia Insurance Reciprocal. After presentation on the floor by Senator Fears and the expression of strong support by Sens. Clarence Holland, Wiley Mitchell and others, the bill as amended was passed by the Senate on an overwhelming vote of 35 to 3.

The remaining question: Would the House accept the Senate amendments?

The end of the session neared as the bill returned to the House. For several days, members of the Society's Professional Liability Committee, the lobbyists and the bill's chief patron worked to convince members of the House of the merit of the Senate amendments. While the bill would retain a chance for passage after a conference committee if the House rejected the Senate amendments, the surest route to victory was in House agreement to them.

On February 27, the Senate amendments came to a vote, and it became apparent that the strong Senate vote had given the bill tremendous momentum. Its opponents seemed to be resigned to its passage, but their arguments on the floor were spirited, though perhaps without the edge of the first time. Ron Davis and Committee members watched anxiously from the gallery. The anxiety was unfounded. The House, by a vote of 76–21 (2 abstentions) overwhelmingly approved the Senate amendments. The bill was adopted. In March Gov. Gerald L. Baliles, despite last-minute activity by some insurers to kill it, signed the bill into law.

Against all odds the "impossible baby bill" had passed.

TODAY House Bill 1216 stands on the national scene as a landmark first step not only towards a solution to the insurance crisis facing obstetricians but towards a comprehensive attack on the liability problems faced by the medical profession. In a step that may hold significant consequences for future resolution of medical liability claims, the power of the trial lawyers was dented and a framework for resolution that avoids the "roll of the dice" of a jury has been built. For claims covered by this bill noneconomic damages are eliminated, punitive damages and the collateral source rule are abolished, and the statute of limitations on claims markedly reduced from what existed before.

At the same time children and their families covered by this bill have the guarantee of swift and certain compensation. In some cases, years of judicial battling toward an uncertain result will be saved. This bill will profoundly touch the families of children who suffer the most serious of injuries at birth and who would have recovered nothing from the tort system.

Perhaps most importantly for the State, however, the bill facilitates the reentry of a major malpractice insurer into the obstetrical insurance market. Areas of the Commonwealth that faced the certainty of loss of obstetrical service now have the hope of quality and available obstetrical care. Expectant mothers who because of shut downs of local obstetrical units and the lack of obstetricians faced long travel to an obstetrical facility may again find hometown care. The value of this is immeasurable.

The Infant Injury Bill was a Cinderella, but while the dogged efforts of The Medical Society of Virginia and its Professional Liability Committee, the leadership of Delegate Woodrum, the working relationship with the Reciprocal and Virginia Hospital Association, and strong, vocal grassroots support for Virginia physicians may have been primarily responsible for the passage of the bill, the real winners in this Cinderella story are the mothers and unborn infants of the Commonwealth. Because of courage and the willingness to fight, they now have the promise of continued quality obstetrical care.

The Patrons

In exclusive interviews for VIRGINIA MEDICAL, the legislators who introduced and shepherded through passage the three tort reform bills created by The Medical Society of Virginia talk about medicine's role in the political process.

CHIP WOODRUM:
Piloting a stormy passage

THE Democratic delegate from Roanoke wanted to be absolutely straight with Virginia physicians about the motivation behind his patronage of the Birth-Related Neurological Injury Compensation Act.

"The purpose of the bill is not to save doctors," Chip Woodrum said emphatically. "It is to ensure that obstetrical care will be available for the 85,000 births that will occur this year in Virginia. One of the biggest thrills of my life was to pick up the paper and read that the Virginia Insurance Reciprocal is going to start writing obstetrical insurance again. That's one of the biggest highs I ever had. Because what I was looking at was the women and children. They are the purpose of this bill."

As the first legislation of its kind in the United States, the injured infants act was a tough one to pull through the General Assembly. "It took hit after hit," Woodrum remembers, wonderment in his voice, "but somehow it stayed afloat." The hits fell during the long hours of committee and subcommittee hearings, through a night of tangled contention on the Senate floor and three stormy readings in the House.

Woodrum gives big credit points for the bill's survival to The Medical Society of Virginia's lobbying team of Framme, Goolsby, Davis et al. They in turn say Woodrum's helmsmanship was the key to easing the measure into the Virginia Code.

By both experience and inheritance, Clifton A. Woodrum is a skilled legislator. He is in his second term as a delegate from the 16th district, with every prospect of winning a third term in 1988, and he's from what he calls "a political family."

"I'm a fifth generation lawyer and the fourth generation to hold office. All, I might add, were Democrats." He is the first Woodrum, however, to serve as a state legislator.

"We were usually petty politicians and small magistrates until my grandfather came along and was in Congress for 23 years," he explains. The congressman was the first Clifton A. Woodrum. "I'm the III, but I don't put that on the ballot," the grandson said.

Chip's father was working for the Securities and Exchange Commission in Washington when Chip was born in 1938, but the family returned to Roanoke when the son was 7 and since then "I haven't lived more than two blocks from

the same place," he says.

After graduating from the University of North Carolina and the University of Virginia School of Law, he began his career as a Roanoke lawyer. Now associated with a firm in the general practice of law, he emphasizes trial work ("plaintiffs, personal injury work and general trials") and handles a lot of corporate litigation.

Woodrum likes both the law and the legislature, but thinks that "the legislature is really an impediment to a law practice. People think you're away at the legislature longer than you are and wonder if you're still in practice. You just try to balance it as best you can."

When the legislature is in session he balances the two roles by going home to Roanoke every weekend, so that "Saturday and Sunday I'm in my law office. I drive. I don't like to fly much." The aversion to air travel departs from a family pattern, he notes."My grandfather soloed at age 53." Roanoke's airport, Woodrum Field, was named for him. "My Aunt Martha was a real pioneer in aviation; she won the transcontinental race for women pilots, the Powder Puff Derby, when I was a child. And she's married to a doctor!" he adds jubilantly. "Jack Zillhardt. He's retired now and they live in Bottentort."

Reflecting on the large number of lawyers in the legislature today, Woodrum sees the need for "a good mix" in a legislative body.

"To be honest with you, I think we need a few more doctors in the General Assembly. [Sen.] Clancy Holland and [Sen.] John Buchanan are wonderful representatives of the medical profession in Virginia, but in years gone by, we had more doctors in the legislature, and I think it would be nice to have more now. We need their perspective."

There are those who consider "politician" an opprobrium, but Chip Woodrum is not one of them. "I'm proud to be a politician. Politics was discussed at every evening meal in my family. My grandfather made a living as a congressman. We looked at it as an honorable profession, and it still is."

He's proud, too, of the new statute for compensating injured infants and has every anticipation that it will function satisfactorily. Some minor problems might develop, he thinks, "but they can be solved by amendments." The bill does not create a new state agency, he points out, but delegates administration to the Industrial Commission, which is experienced in running the similar worker's compensation system.

"Hopefully, we have crafted the law so that it is failsafe in the rights of the injured infant," Woodrum observes.

What next in tort reform?

"I think we need to find out what effect this injured infants act will have on insurance rates," he answers, "and I think the bill Delegate [Thomas W.] Moss put in, requiring closed claims disclosure by commercial liability carriers, is going to be extremely important. It will help us analyze what really generates the cost of insurance."

—A.G.

CLANCY HOLLAND: Building a bill's momentum

SITTING at his desk in the Virginia Beach office he shares with three associates in the general practice of medicine, Clancy Holland sized up the tort reform campaign from his vantage point as a state senator.

"It was an unbelievable show of strength, really impressive," was the senator's opinion. "A tremendous number of tort reform issues were brought before the legislature, more than any of us imagined could get through. But they got through, every one of them—maybe not exactly as we wanted, but in some fashion they got through."

He cited three factors in the success. First, the Medical Society of Virginia's lobbying team of Framme, Goolsby, Davis et al.

"That team brought us up to speed with other interest groups in the state who have lobbies working year in, year out. When you think of it, we were bucking insurance companies, we were bucking trial lawyers, and they've been in the game for a long time. To see all those issues go through, including the two bills Mary Sue Terry brought up on financial data from the insurance companies—well, I wouldn't take a thing away from the other people, but I think The Medical Society of Virginia was the driving force of it all."

The second factor was the groundwork laid by MSV members, most but not all of them operating out of the Professional Liability Committee, who for three years attended legislative commission hearings on the liability situation, listening, studying, testifying.

"They participated," the 7th district senator emphasized. "They got right in there and let the commission members know their feelings. People like Ron Davis and

many others laid a tremendous groundwork."

"And the mail!" Senator Holland exclaimed when he got to the third factor. For years he has been telling Virginia physicians that they've got to write to their legislators, get involved, register their opinions. To his delight, this year they did it.

"The members of both houses were saying to me, 'I have never gotten so much mail from physicians!' It was the first time in the four years I've been in the Senate that I heard comments like that. If there was some way we could maintain that momentum, of contacting your legislator through a letter or telephone call, then you will see tremendous support for medicine in the future."

Others point out that Clancy Holland himself was a big factor in the tort reform success. He kept an eye on all the bills in progress, feeding information to the Society's lobbyists so that they could "go out and touch everybody," as one legislator described it, and the way he maneuvered the MSV vaccine bill through both houses was an outstanding example of political momentum. Va Med's reporter was curious to know how, exactly, he did it.

First, he related, he did his homework. "I was afraid there might be some members who wouldn't give an inch on any kind of tort reform, or who might think that if they gave us immunity in this area, they might be committing themselves to other areas. So I went around to all the members of the [Senate] Courts of Justice Committee, one by one. I didn't try to pressure them but just informed them of what I was coming before the committee with and showed them what inequities were involved in the issue."

Food for thought: Senator Clancy Holland (right) has information for Counsel Allen C. Goolsby III

The committee referred it out on the unanimous consent calendar, and it passed the Senate 100%.

"Then I started the same process on the House side, where there are more members and I don't have as much contact," he related, "so I picked out six of the more active members on the Courts of Justice Committee there, such as Hardaway Marks, Ted Morrison, Dickie Cranwell, Chip Woodrum—and Bernie Cohen, whose relationship with medicine has not been the best, but he received me very well and made some good suggestions. You go to the people who you hope will be with you but also those who may oppose you completely. The bill went through amazingly well."

Indeed it did. It passed the House 97-0.

Clarence Adrian Holland learned about political momentum at his father's knee: the late Shirley T. Holland, an Isle of Wight banker, served for 20 years in Virginia's House of Delegates. One of Clancy Holland's two brothers, Richard J. Holland, is the Democratic state

SENATE BILL 665
VACCINE-RELATED INJURY ACT

Prompted by federal legislation recently enacted and not yet funded that would provide liability immunity to vaccine manufacturers, SB 665 extends the protection of the federal act to physicians, stating that a person eligible for the federal program cannot recover against an administering physician unless that physician was grossly negligient.

senator from Isle of Wight, and followed the father also into banking.

The third brother joined Clancy in medicine; he is Dr. William E. Holland, Richmond cardiologist. (Not related to the three brothers is another current state senator, Ed-Arlington.)

For 12 years Clancy Holland was a member of the city council of Virginia Beach (during the same period he was president of the Virginia Beach Medical Society), and for two of those years, 1976-1978, he was the city's mayor. Dr. Holland wasn't happy as mayor. It took up too much time.

"I *love* medicine, full-time. I *like* politics, part-time," he explains, adding with a twinkle, "It's fun." He credits "three delightful partners and an understanding family" with making his political fun possible. The partners are Dr. George S. Wong, Dr. William B. Warden, and Dr. William T. Johnson; they cover for him while the General Assembly is in session, but he takes care to fulfill his share of the group's Saturday rotation schedule.

A rotation schedule might be in order for MSV lobbying efforts at the General Assembly, Dr. Holland thinks, but it depends on what the issues are in 1988.

"We should be visible in 1988, sure, we should maintain that," he stressed, "but perhaps not push so many issues, to give the legislator a chance to feel he is not being smothered, and also we might take on more of what I call 'social' measures, like the seat belt law, to show the legislators we're concerned not only about our profession but about the state in general.

"But if big issues come up, I would be in favor of going the same route we did this year," he said. "It was money well spent."—A.G.

JIM JONES: Engineering a risk switch

"PUTTING the brakes on the business-as-usual approach that has existed in our tort system." Sen. James P. Jones of Bristol believes that is the chief accomplishment of the tort reforms passed by the 1987 General Assembly.

"It's going to be difficult to see any immediate effects from the measures that were passed," he believes, "but they promote an atmosphere that I think will attract more insurance companies into Virginia, helping to ease the availability situation. That atmosphere also will enable the enactment of further reforms in the future"—an important point, he observes, because "I think there are still a lot of things to be corrected."

"I think we'll see some continued examination of our whole tort compensation system," he forecasts, "although the emphasis probably won't be as dramatic. I think many of the ideas that were rejected at this session and earlier sessions may come back. For example, it's possible we may see the day when, as with the injured infants bill, other types of cases are taken out of the tort system and handled like workers' compensation."

Would he be in favor of that?

"Frankly, I haven't decided yet," he responded. "I think we need to approach that somewhat slowly, and maybe we need to do it on an ad hoc, piecemeal basis. But we may come to that, and I certainly will consider it."

As he spoke, Senator Jones was sitting in the Bristol, Virginia, office out of which he conducts his general civil practice of law. Bristol is 400 miles due east of Virginia Beach, where Jim Jones was born in July 1940 and spent his boyhood. His father, now retired but still living in Virginia Beach, was a civil engineer. Son Jim went to the public schools, matriculated at Duke University, went from there to the University of Virginia, graduating from the School of Law in 1965, then worked for three years in Richmond, first in the Attorney General's office and then as a law clerk on the United States Court of Appeals.

In 1968 he joined Penn, Stuart

SENATE BILL 618
AMENDMENT TO
JOINT UNDERWRITING ASSOCIATION ACT

Activated in November 1986 as a source of liability insurance for Virginia physicians, the JUA 1) set premiums at 110% of St. Paul's rates; 2) required the policyholder to pay amount equal to 50% of premium into stabilization reserve fund and to 3) agree to unlimited retroactive premium in the event of deficit.

SB 618 mitigates those terms by 1) reducing the reserve fund surcharge to 33% of premium, and 2) limiting policyholder's liability to amount of premium plus 33% reserve fund, thereby 3) shifting deficit liability to the insurers.

and Miller, a Southwest Virginia law firm with roots in the 19th century and offices in Bristol and nearby Abingdon. The "Miller" of the partnership was Andrew P. Miller, who was later elected attorney general and who now lives in Northern Virginia. The firm is now Penn, Stuart, Eskridge and Jones and carries on its letterhead the names of 15 attorneys.

Before Jim Jones left Bristol in January for the legislature's 1987 session, he had flagged tort reform as "one of the most pressing things before us, particularly as it related to the medical profession," he recalled. This view arose in part out of his work as counsel to Johnston Memorial Hospital in Abingdon, and in part out of talks "with a number of my physician friends, including Tom [Dr. J. Thomas] Hulvey, about their increasing concern," he said.

But it was through associate William M. Eskridge that the liability situation had specific reality for Senator Jones. (Like Jones, Eskridge is a vote-getter; he is president of the Virginia State Bar.) Attorney Eskridge's practice is primarily the defense of medical malpractice claims; one of his clients is the Virginia Insurance Reciprocal, which writes medical liability coverage. Because of his partner's clientele, Jones abstained from voting on the injured infants act.

"Since we're partners, I share in the fees he receives from these cases, even though I've never handled one and do not specialize in the area, so there was a question of conflict of interest," the senator explained.

Such conflict did not obtain in the case of SB 618, the Amendment to the Joint Underwriting Association Act, so when Medical Society of Virginia representatives asked Senator Jones to be its chief patron, he accepted.

Mark Charette

Working it out: from left, Senate Majority Whip Hunter B. Andrews, Clerk of the Senate Jay T. Shropshire, and Senator Jim Jones

"The JUA simply wasn't working," he explains. "We knew there were many physicians out there who could not obtain insurance, particularly in the high-risk specialities, such as ob/gyn, but only two dozen or so had signed up with the JUA. The reason, it seemed obvious to me, was that it really wasn't functioning as insurance in the normal concept of the term, because it provided that if a large award ever exhausted the fund created by the premiums, the doctors would have to put up their personal assets to cover this, and no matter how unlikely that contingency, few doctors would be willing to take such a big risk."

SB 618 shifted the contingent liability on a pro rata basis to all the insurance companies licensed to do business in Virginia. That key change escaped the attention of insurance company lobbyists when Senator Jones introduced the bill, and it passed the Senate easily. In the House of Delegates, however, opposition developed, so a compromise was worked out: the insurance companies were allowed to deduct from the state taxes assessed on their premium business any sums paid into the deficit fund.

"The insurance companies weren't entirely pleased with the bill even with that proviso," the legislator remembers, "but they withdrew opposition, and the bill then passed without incident."

Jones knows that any costs to the insurers will fall ultimately on the taxpayer, but he is convinced that "on a temporary basis, it's proper for society as a whole to bear this problem. The physicians should not be expected to risk all of their personal assets."

Beginning July 1, when the bill becomes effective, Senator Jones will be watching for positive results. "I'm very hopeful," he says, "that it will mean a difference for many physicians." —A.G.

1987: A Most Unusual Session

For months in advance it was apparent that the 1987 session of the General Assembly would be special. With all senators and delegates standing for reelection, PHICO's withdrawal from the physician liability market, and the extensive hearings on tort and insurance reform conducted by the Parkerson Commission, an exciting legislative session was all but inevitable. The November 1986 federal court decree that the $1-million limit on malpractice awards was unconstitutional removed any doubt that 1987 would be a most unusual session.

As a broad overview, it is clear that the legislature did try to improve the availability and reduce the cost of liability insurance. What is not known now, and may not be known for some time, is whether the legislative changes will be effective. Regardless of the ultimate outcome, the physician community should be commended for stepping up to the plate and taking a full cut at the medical liability problem. With the increase in dues, The Medical Society of Virginia was able to call upon a fully staffed and well-coordinated public relations and lobbying team. The contribution of the Society's Professional Liability Committee, chaired by Dr. Ronald K. Davis, cannot be overemphasized. Dr. Davis and a handful of other physicians spent countless hours dealing with various aspects of the tort reform proposals. The intensity of their efforts and of those of the lobbying and PR group was apparent to many and critical to success. Special mention of the hard work of Larry Framme, Sandy Kramer, May Fox, Melanie Gerheart and Carol Cones seems appropriate. Physicians should also be aware of the invaluable assistance of the Virginia Hospital Association.

I also would highlight the teamwork displayed throughout, beginning with MSV President Richard L. Fields and extending through the entire group. With the large number of players involved and multiple bills and committees and subcommittees, it is remarkable that the Society's legislative efforts flowed so smoothly, without major communications breakdowns or other glitches.

Perhaps most important, a review of the session makes one point absolutely clear: the heart of the process is at the ballot box. Active participation by physicians in the political process is essential. Lobbying and public relations are important, but the key to success or failure is whether the elected delegates and senators are sensitive to the concerns of medicine.

Elsewhere in this section are summaries of the three MSV-created bills that were passed. The following tort reform and insurance legislation was also enacted.

Punitive Damages (SB 402). Places a limit of $350,000 on punitive damages that can be awarded in a suit based on a claim that arises on or after July 1, 1988.

Jury Duty (SB 403). Removes most automatic exemptions from jury duty, except those for certain elected officials, attorneys, sheriffs, police officers, penitentiary personnel, mariners and residents of Tangier Island.

Directors'/Officers' Liability (SB 404). Enacts a cap effective July 1, 1987, on the liability of directors and officers of stock corporations and for-profit non-stock corporations in derivative and shareholder or member actions equal to the lesser of a) the amount specified in the corporation's articles of incorporation or a shareholder- or member-approved bylaw; or b) the greater of i) $100,000 or ii) the amount of compensation received during the previous 12 months.

The liability of compensated directors and officers of a not-for-profit non-stock corporation is limited in any proceeding to the amount of compensation received during the previous 12 months. Uncompensated directors and officers of not-for-profit non-stock corporations are not liable for any damages in any proceeding.

Cyane Lowden

Two members of the Professional Liability Committee: Dr. Robert L. Adeson, vice chairman (left), and Dr. James L. Ghaphery

None of these caps is available to the director or officer who engaged in willful misconduct or knowing violation of the criminal law or a federal or state securities law.

The General Assembly also broadened the scope of the idemnity that the shareholders of a stock corporation or the members of a non-stock corporation may provide for directors and officers.

Statute of Limitations in Medical Malpractice Actions (SB 405). Amends the statute of limitations for medical malpractice actions in connection with minors as follows: actions brought in connection with a child under 8 must be brought before the child's 10th birthday, actions brought in connection with an injury to a child 8 years or older must be brought within two years.

High-Risk Enterprises (SB 406). Permits pest control firms and solid waste facilities, in lieu of complying with statutory minimum insurance requirements, to post a personal bond or furnish other surety in the event they are unable to obtain adequate insurance coverage on the voluntary market.

Frivolous Motions (SB 407). Gives state courts the authority on motion of the court or of the parties to sanction attorneys or parties who file frivolous motions or pleadings.

Emergency Obstetrical Services (SB 408). Any person who, in the absence of gross negligence, provides emergency obstetrical care to a woman in active labor who has not been cared for by the person or his professional associates and whose medical records are not reasonably available shall be immune from civil liability.

Immunity for Local Government Officials (SB 409). Members of local governmental entities will be immune from liability in any suit arising out of the conduct of the entity upon which they serve except in cases of willful misconduct, gross negligence or misappropriation of funds.

Closed Claims Reporting (HB 1234). Requires liability insurance carriers to report annually to the State Corporation Commission on amounts actually paid on all liability claims for personal injury and property damage under policies issued in Virginia.

Ratemaking (HB 1235). Increases the authority of the State Corporation Commission to require the use of Virginia loss experience in ratemaking by insurance companies and to monitor the effectiveness of competition in regulating insurance rates.

ALLEN C. GOOLSBY III, Counsel,
The Medical Society of Virginia

Glycerol Rhizotomy as Treatment for Trigeminal Neuralgia

K. Singh Sahni, MD, Angelo Maset, MD, and Harold F. Young, MD,
Richmond, Virginia

As treatment for the pain of trigeminal neuralgia, 31 patients who previously had undergone extensive trial of medical management underwent the surgical procedure of percutaneous retrogasserian glycerol rhizotomy. During 14 months of followup, more than 80% were found to be completely pain-free. Noted as a major advantage over radiofrequency rhizotomies was the lack of annoying sensory deficits.

FEW diseases in medicine inflict more acute pain than trigeminal neuralgia (tic douloureux). This paroxysmal chronic pain state affects an estimated 15,000 new patients per year in the United States.[1] Proposed methods of treatment for trigeminal neuralgia have been as diverse as proposed etiologies.[2-10]

Current trends in the surgical management of trigeminal neuralgia reflect advances in both the etiology and the pathogenesis of this disease. Vascular compression of the trigeminal nerve at the root entry zone has been considered the etiological factor in a substantial number of patients with tic douloureux. This was first recognized by Dandy,[11] and later in the century Gardner and Miklos[12] performed the first published successful vascular decompression. Jannetta[13,14] extended those observations and proposed microsurgical decompression as the definitive treatment of trigeminal neuralgia. This technique has become the most popular open surgical procedure for trigeminal neuralgia. At the Medical College of Virginia, this technique is reserved for patients in good medical health and younger than the age of 60, primarily because of the potential risks involved with this major operation.

The percutaneous retrogasserian radiofrequency rhizotomy technique was designed by Sweet and Wepsic.[15] This causes selective thermal destruction by graded radiofrequency lesions using temperature-monitored electrodes. This technique was introduced in 1974 and has become the benchmark by which the newest techniques are compared. The major difference of this technique from a glycerol rhizotomy is the higher incidence of sensory deficits, including anesthesia dolorosa noted in patients with radiofrequency lesions.

In 1978, Hakanson[16] from Sweden found that the percutaneous retrogasserian injection of glycerol into the trigeminal cistern provided immediate relief of "tic" pain. Following his findings, he published in 1981 an initial series of 76 patients treated by this technique.[16] The large majority of them had obtained immediate relief of tic douloureux pain, yet no major complications had occurred. At the Medical College of Virginia, this technique is the initial surgical therapy for trigeminal neuralgia. We report here our preliminary results over the past 14 months.

Indications

Two major anticonvulsant drugs have been efficaceous in the management of patients suffering from tic douloureux, Dilantin® and Tegretol®. The latter is the drug of choice. Approximately 70% of the patients will have significant pain relief. About 25% will never get pain relief even with Tegretol. Another 25% will get both pain relief and unacceptable side effects from this management. Therefore, almost 50% of the patients can be successfully treated with this drug alone.[17] Almost universally, the surgical outcome seems to be better in patients who have had some good relief with Tegretol but due to the side effects and/or the toxicity involved, had to discontinue it. Dilantin is the second drug of choice, and will give pain relief to about 25% of the patients. Side effects will occur in about 5%-10% of the patients given this drug. Therefore, there is a significant percentage of patients who ultimately end up opting for surgery basically because of drug toxicity or the failure to respond to the medication.[18]

Results

From an initial number of 31 patients diagnosed as having trigeminal neuralgia, 80.7% of the patients obtained complete relief of pain here at the Medical

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Table 1. Results of Percutaneous Rhizolysis Glycerol Rhyzotomy.

Author	Total Patients	Followup (Months)	Pain Relief Excellent	Good	Poor
Hankanson[1]	74	2–48	86	14	0
Lunsford[20]	112	4–28	67	23	10
Sweet[21]	31	—	50	—	—
Takusawgana[22]	89	—	80.9	10.1	9.0
Beck[23]	33	1–24	76	9	15
Sahni	31	2–14	80.7	12.9	6.4

College of Virginia, with a followup period of up to 14 months. Only two patients did not get immediate relief after the procedure. These results are in close agreement with others available in the literature using the same technique (Table 1).[1,16,19]

The technique involves inserting a spinal needle under local anesthesia into the foramen ovale (Fig. 1). After opacifying the trigeminal cistern with metrizamide, the volume of the cistern is measured. Glycerol is then injected in similar volume in 100% concentration. The majority of the patients obtain immediate relief, and some may get relief for as long as three weeks after the procedure. Unlike percutaneous radiofrequency rhizotomy, no case of anesthesia dolorosa after a glycerol injection has been seen at this institute, nor has there been any infection related to this procedure at our institute. Transient decrease in sensation of a single division of the 5th nerve was noted in two patients but the problem resolved after one month. Similar observations have been described previously by others.

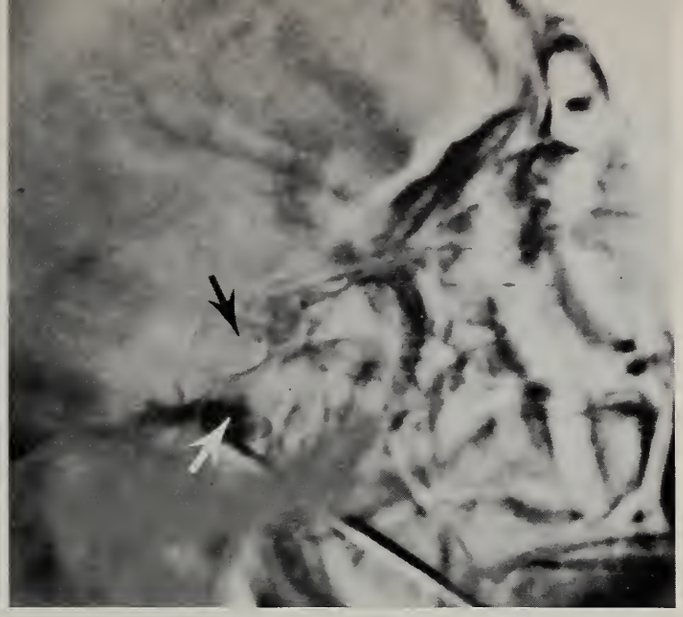

Fig. 1. Subtracted lateral skull x-ray showing the opacification of trigeminal cistern with the metrizamide (white arrow); sella turcica (black arrow).

Summary

In our series, which is admittedly small with a rather brief followup, we have found percutaneous rhizotomy by glycerol injection to be safe, simple and without any major complications for patients with tic douloureux. In the majority of patients over 50, we believe this treatment is the first surgical treatment of choice. The results have been very rewarding with the major advantage the lack of sensory deficits.

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Increasing Minority Representation in a Medical School

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HISTORICALLY, there has been a dearth of minorities represented in the medical profession. Although substantial gains were made in the 1970s, enrollment of blacks in medical schools has declined in recent years. The impact of this decreased enrollment is seen in the severe shortage of black health professionals.[1-3]

During the fall of 1983, interested medical educators at the University of Virginia decided that a more active approach had to be implemented in order to attract and retain minority medical students. One strategy was the development of the Medical Academic Advancement Program (MAAP), which was offered for the first time during the summer of 1984.

Supported entirely by the School of Medicine, this intensive six-week program was designed to provide minority and disadvantaged students with the opportunity to experience the content, volume, and pace of the medical school curriculum. Emphasis was on enrichment, in that students participated in educational activities that were currently not available in the undergraduate curriculum. The program was targeted toward rising juniors and seniors, those who had recently graduated, and those who had been admitted to the first-year class of medical school. In order to be admitted to the program, students were required to submit an application, an official transcript, and two letters of recommendation and were expected to complete prerequisite courses in biology, calculus, organic and inorganic chemistry, and physics.

In 1984 ten students were admitted; 20 participated in 1985, and in 1986 it is expected that the program will remain limited to 20 students.

The first offering of the program served as a pilot for MAAP, which is currently supported in part by the federal Health Careers Opportunity Prgram. Specific changes in structure and format were made in the 1985 and 1986 programs based on evaluation results. Currently MAAP consists of the following five components: bridging courses, medical school basic science courses, sessions on study skills, clinical or medical research lectures or presentations, and academic advising.

The bridging courses are offered during the first part of the program. These three courses are statistical genetics and genetic epidemiology, chemistry in medicine and embryology and developmental biology. The purpose of these courses is to provide a transition from undergraduate to medical school basic science courses through the use of medical terminology and examples. These courses not only provide a review of principles and concepts common to basic science but also serve as an introduction to the medical school level courses.

The medical school level courses are given during the last part of the program. Three courses—cell

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physiology, biochemistry, and clinical genetics—are conducted by medical school faculty. Faculty members take a portion of their academic-year course and present it in its undiluted form to the program participants. The same tests that are used during the regular year are administered at this time, too.

A two-day session in study skills is conducted by nationally recognized experts during the first weekend of the program. This session provides valuable tips in note-taking, test-taking, time-management, and general study habits. Ways to reduce stress are also presented. Students have found that this session provides them with alternative strategies for studying. In addition, students are administered a diagnostic test to determine their existing study habits. This has proved useful in identifying areas where students need to revise their methods for studying. If a student is particularly weak in a particular study skill, faculty work on an individual basis with the student.

A diagnostic test to assess the student's preparation in chemistry and quantitative relationships is also administered. Developed at the Bowman Gray School of Medicine in Winston-Salem, North Carolina, the test consists of six 15-item sections. If a student performs poorly on one or more of the sections, he/she is referred to the instructors for additional tutoring and assistance.

During the six-week program, a clinical and research lecture series is sponsored by the Department of Medicine. It exposes students to a variety of health problems from several different perspectives. Students have the opportunity to talk with physicians, housestaff, other health professionals, and patients. For many students, it is their first encounter with the health care system in a non-patient role.

Academic advising and personal counseling are also provided by faculty. During their six-week stay, each student has two scheduled appointments with the Assistant Dean of Minority Affairs. This gives the student a chance to discuss concerns and anxieties related not only to the program but to issues related to medical school, such as application and interviewing procedures, admissions, financial management, and potential content areas for additional preparation. These appointments, in turn, allow the assistant dean the opportunity to know students on a more personal level. Program staff and faculty also make themselves readily accessible to students in order to answer questions, provide tutoring, and discuss concerns.

Response to the program has been keen. In 1984, 25 applications were received. In 1985, 50 applications were received and in 1986, 60. While the majority of applicants either have been Virginia residents or have attended an undergraduate college in the state, the program has been open to all minority and disadvantaged students across the United States.

Since the goal of the program is to increase the number of students who apply to and are accepted by medical schools, staff consider the program to be successful whenever one of the participants enters a health field regardless of whether he or she attends the University of Virginia. Of the 50 students who participated in 1984, 1985 and 1986, 22 are enrolled in medical school, one in podiatry school, and three are doing graduate work (two in biology, one in pharmacology). Many of the 1986 program's seniors are applying to medical school.

Participants and faculty alike consider the program beneficial to those in the process of applying and to those who are entering medical school. Students have praised the program for giving them a unique experience in a medical school setting. Not only did they feel stimulated by the challenge of medical school level coursework, but they also found the clinical experiences exhilarating.

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VIRGINIA MEDICAL
EDITORIAL

Medical School Admissions

A RECENT VISITOR to Australia had the opportunity to learn something about medical education in that country. The system resembles that in Great Britain. The student enters a six-year medical school from high school; there are no college premedical requirements such as those existing in the United States.

One medical school in Melbourne admits 165 students from approximately 600 applicants. While there is a Dean's Committee for admission, their job is not a demanding one since performance on a prescribed examination constitutes the only consideration for admission. There are no interviews.

The problems with this system are obvious. Since the candidates are usually 18 years of age, they have not always matured to the extent that they are certain that medicine is their preferred vocation. Since there are no interviews, personality deficiencies cannot be pinpointed.

Once the candidate gains admission to medical school, any financial worries as to education are over. The student is completely subsidized by the Australian government. However, the student who is financially able to attend a private school, which in Australia generally provides a better high school education, is more likely to gain admission to medical school by virtue of a superior examination performance.

WHAT about the admission standards and mechanisms in the United States, particularly those in Virginia medical schools? Some of the general standards are well known, but other considerations are not so clear. Survey of the three Virginia medical schools yielded the following information.

Of those striving for admission to Virginia medical schools, 6.4% are successful—403 out of 6,252. Of those accepted, 308 are Virginians. However, it must be realized that a much larger percentage of Virginians gain admission, since each applicant probably makes application to at least two and perhaps all of the three Virginia schools, as well as a number of out-of-state schools. Females constitute 33%-42% of each entering class. One school lists black minority students at 2% of the entering class. The other schools do not specify "black" and list minorities at 4% and 7%. In each instance the pool of minority applicants is small.

The criteria for admission include grade point average (with consideration of the college attended), MCAT scores, recommendations, extracurricular activities and interviews; each school attaches a varying degree of importance to each of these considerations. All schools favor applicants who reside in Virginia, although there is an unofficial quota, i.e., 75% of the best qualified from Virginia and 25% of the best qualified from out-of-state. Sons and daughters of alumni, faculty, etc. have some advantage.

The most important criterion is grade point average, but such importance varies according to the college attended, as well as the courses studied (for example, not much credit for basketweaving). For grade point average, all three medical schools assign a different level of importance, all the way from

25% to 50% of the overall grade. MCAT scores are treated in a similar manner, with importance ranging from 10% to 30%. Recommendations and interviews are where the real disparity exists.

One school places the importance of recommendations at 20% of the overall grade, while another gives major consideration only to a recommendation from someone who has actually been involved in the applicant's education; little importance is placed on a recommendation from "a friend of the family".

For all practical purposes, each student granted admission must have an interview. At one school, a handful may be admitted without an interview. Among all those interviewed, approximately one-fourth to one-third gain admission. There is a marked difference in the importance of interviews and the manner in which they are conducted. Importance ranges from 10% to approximately 25% of overall grading. An interview in one school consists of a three-person panel, with a clinician and basic scientist always present; in the other two institutions, there are two separate interviews, each conducted by a member of the admissions committee. One of the two interviewers may be a student. There may be a further difference here, however, since the latter two schools do not attach the same importance to the interview. One utilizes the interview only to determine the "humanitarian index" while the other considers the interview to be on a par with grade point average and MCAT scores.

THERE you have it, and overall it presents itself as a fair and equable system. In the consideration of any such mechanism, there are differences of opinion. Here are some observations.

It would appear that all medical schools might give significant consideration to recommendations by alumni and friends of that institution. For example, it is likely that a "friend of the family" for 20 to 30 years might have a better insight into the applicant's suitability for a career in the practice of medicine than that gained by the medical school in a brief interview. This obviously does not imply that the institution should accept an unqualified applicant, no matter how laudatory such a recommendation might be.

For all practical purposes, an interview is necessary. While one school lauds the "fresh approach" by the student interviewer, experience in the interviewer is useful in determining the maturity and humanitarianism of the applicant. If it is deemed helpful for a medical student to serve in this capacity, he/she should serve on a panel or be one of at least three interviewers.

This question has been raised: Would a 15-minute psychologic examination be helpful in pinpointing personality defects? The answer supplied by one institution is in the negative; trial was unsuccessful.

We in Virginia are justifiably proud of our medical schools. Perfection is their goal and we applaud and support them.

E. L. K., JR.

Grasping the Nettle

ELSEWHERE in this issue, Drs. Fang and Apprey offer a thought-provoking progress report on their efforts, at the University of Virginia School of Medicine, to attract and retain minority students. They measure success in terms of admissions to and graduation from any professional graduate training program, not merely from their own institution.

Virginia, like several other states, has had a continuing problem with affirmative action. Year after year, the Commonwealth as a whole and its public institutions of higher learning individually have experienced difficulty in achieving their stated goals. Some minority students, once recruited, soon experience frustration and dissatisfaction with the overall educational experience. Their unhappiness always makes headlines, and the casual reader might well shrug his shoulders in despair and wonder if progress will ever be made.

That is why it is refreshing to learn of a low-key, skillfully designed, up-beat program that really does seem to get the job done. For three years prior to the institution of the Medical Academic Advancement Program (MAAP), the percentage of underrepresented minorities in the first year medical school class averaged 3.6%; for the next three years, after institution, the average was 6.6%.

MAAP is only one of several strategems employed at the University of Virginia; others include multiple recruitment efforts, basic science deceleration (if needed), and medical-school-wide tutorials (if needed). All of these are ongoing, are cheerfully supported, and have created an excellent learning opportunity for both minority and majority individuals. Resisting the temptation to ignore the issue, addressing serious problems in a serious way, and coming up with some serious (and useful) answers

constitutes an invaluable educational experience: thus we learn how to grasp the nettle.

The authors acknowledge with thanks the guidance and support of (among others) former dean of the medical school Norman J. Knorr, MD. Is it not an interesting coincidence that Dr. Knorr last fall received, from the UVa chapter of the Student National Medical Association, a special award honoring him for his interest in promoting the recruitment, retention, and graduation of minority students? *Si monumentum requiris circumspice.*

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Retirement

"Have you retired yet?" One frequently hears this question. Actor George Burns, when 88, answered it by saying, "To what? I've spent my life in this profession, I feel comfortable doing it. I respond when needed. I'm considered able, competent, proficient, I enjoy it. What could so-called 'retirement' give me?" On a recent TV program, Burns recalled some of his past performances. Referring to his playing of God, he asked, "Where do you go from there?" Where indeed?

Another angle is suggested here. If one is physically able and mentally alert, does one have the moral right to retire from productive activity? There will in time be the inevitable physical handicaps, the limitations on strength and agility; nevertheless, opportunities will still abound. Writing, teaching, consulting, research are but a few of the possibilities.

At a recent medical convention I asked a contemporary, "Are you still practicing?" His eager reply was, "Oh yes, it's a lot easier than working." To another octogenarian I posed the same question. His response was prophetic: "I surely hope I live long enough to retire, if obligatory."

Such feelings are really a continuing fulfillment of the traditional "best" reasons for choosing in the first place to be a physician. Am I needed? Am I able? The urge to fulfill these qualifications can lead to but one response.

There are then two strong influences to encourage and inspire one to continue in practice. One is that of observing one's contemporaries still in practice. The other is the ego-inflating effect of the patient response. Physicians are but human and welcome being praised. One who had had more than his share of compliments replied: "Oh, but I am neither as good nor as bad as people say." Another who had retired and gone to Florida (not the only one) found himself homesick for patients' needs and the pleasure of meeting them. Goodbye, retirement! He returned to practice.

For one who has chosen family practice or some similar discipline and who has persisted in its habit-forming routine and its perennial satisfactions, the lure of complete change of life pattern is not wholly persuasive. As one GP put it, "If being retired means that you can do what you choose to do and be happy at it, then I'm already retired."

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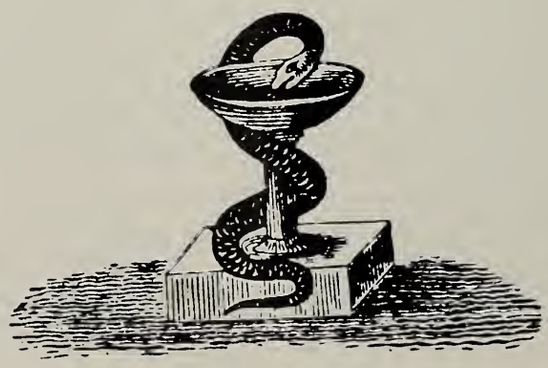

VIRGINIA MEDICAL OBITUARY

G. F. Elsasser, MD

Dr. George F. Elsasser, Jr., Norfolk internist, died January 28 at the age of 61.

Born in Portsmouth, Dr. Elsasser was educated entirely in Virginia, earning his doctorate in medicine at the Medical College of Virginia in 1948. He interned at the United States Naval Hospital, Portsmouth, and trained at the Bethesda Naval Medical Center and at Duke University, beginning his private practice of medicine in Norfolk in 1956.

For 30 years he was identified with the Muscular Dystrophy Clinic at Norfolk General Hospital, part of that time as its director. At his death he was associate professor of medicine at Eastern Virginia Medical School.

Dr. Elsasser belonged to the Norfolk Academy of Medicine, The Medical Society of Virginia, the American Medical Assocation, the American Society of Internal Medicine and the American College of Physicians.

R. H. Boulware, Sr., MD

Dr. Ralph H. Boulware, Sr., Lynchburg, died January 16 in Key West, Florida, at the age of 75. A South Carolinian by birth, Dr. Boulware earned his medical degree at Howard University's College of Medicine and was a United States Army veteran. His memberships included the Lynchburg Academy of Medicine, The Medical Society of Virginia, the American Medical Association, and the American Academy of Family Physicians.

Wellford Reed, MD

Dr. Wellford Clairborne Reed, 78 years old, died on March 6 in Richmond, where he had practiced internal medicine and cardiology since 1939.

A native of Richmond, Dr. Reed was educated in the city school, graduated from Hampden-Sydney College and received his doctorate in medicine from the Medical College of Virginia, then trained at MCV and Johnston-Willis Hospitals. From the earliest days of his practice he served on the Johnston-Willis staff and during the 1960s was a member of that hospital's board of directors. As a commander in the Naval Reserve, Dr. Reed was on active duty in the Pacific from 1942-1946.

Dr. Reed was a member of the Richmond Academy of Medicine, The Medical Society of Virginia, the American Medical Association the Southern Medical Association, and the American College of Physicians.

George C. Andes, MD

Dr. George Calvert Andes, Harrisonburg, died October 30, 1985, in a Shenandoah Valley nursing home. He was 94 years old.

Born in Shenandoah County, Dr. Andes attended Massanutten Military Academy and Bridgewater College, then earned his doctorate in medicine at the Medical College of Virginia, followed by service as a lieutenant in the Army during World War I and internship in Wilmington, North Carolina. He began practicing medicine in Timberville, Virginia, in 1920; later practiced in North Carolina and West Virginia; then, after postgraduate work in EENT in Chicago, settled in Harrisonburg and practiced there until his retirement in 1966. He came to membership in The Medical Society of Virginia through the Rockingham County Medical Society and belonged also to the American Medical Association.

Henry L. Bastien, MD

Dr. Henry L. Bastien, Arlington ophthalmologist, died at his home on February 12 after a prolonged illness. He was 77 years old.

Born in Ontario, Canada, Dr. Bastien moved to Virginia as a boy. He graduated from the University of Georgetown School of Medicine, trained in Washington, and opened his Arlington offices in 1933. During World War II he served as a medical officer in the 11th Airborne Division in the Southwest Pacific.

Dr. Bastien had been president of the Northern Virginia Academy of Ophthalmology and the Virginia Society of Ophthalmology. He was twice president of the Arlington Host Lions Club and in 1976 was president of the Arlington Chamber of Commerce. In 1986, the Arlington County Medical

Society honored him with its Welburn Award.

He belonged to many medical organizations, including the American Academy of Ophthalmology and Otolaryngology and the American College of Surgeons, and had been a member of The Medical Society of Virginia since 1936.

William T. Driebe, MD

Dr. William T. Driebe, radiologist who practiced in Arlington and Fairfax, died February 4 in Loudoun Memorial Hospital, Leesburg, after a heart attack. He was 63 years old.

Born in Scranton, Pennsylvania, Dr. Driebe served in the United States Army during World War II, attended the University of Scranton, and received his medical degree from Georgetown University in 1950, continuing there for his training. He had been chief of radiology at Arlington Hospital and was a past president of the Washington area chapter of St. Jude Children's Hospital, Memphis, which specializes in treating childhood leukemia.

His memberships included the Arlington County Medical Society, The Medical Society of Virginia, the American Medical Association, the American College of Radiology and the Radiological Society of North America.

B. H. Martin, Jr., MD

Dr. Berkeley H. Martin, Jr., who practiced ophthalmology in Richmond for 30 years, died February 27 at a Richmond Hospital. He was 73 years old.

A graduate of the University of Richmond and the Medical College of Virginia, Dr. Martin served in the armed forces during World War II, then completed his medical training at the Episcopal Eye and Ear Hospital, Washington. His professional memberships included the Richmond Academy of Medicine, The Medical Society of Virginia, the American Medical Association, the American Academy of Ophthalmology and Otolaryngology and the American Association of Ophthalmology.

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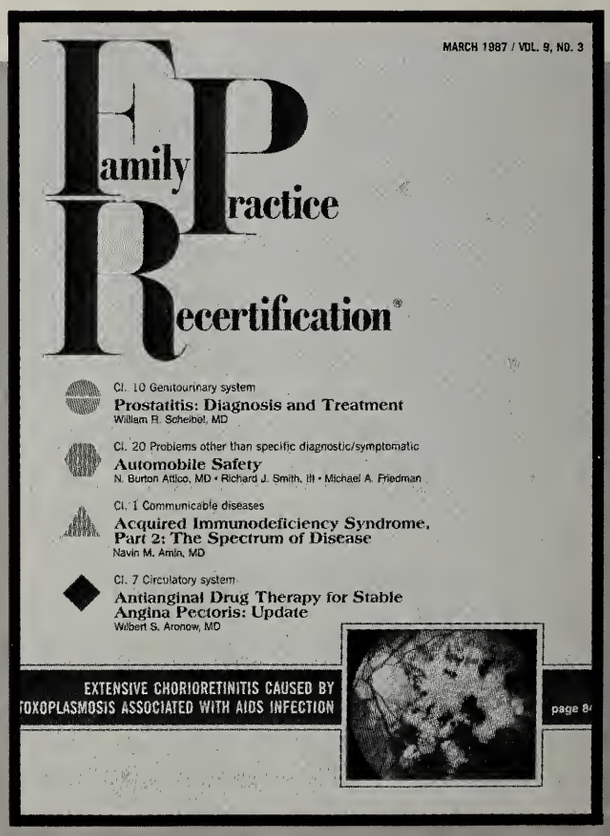

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Dr. Fields testifies at House hearing on drug sales by p

Doctors as drug salesmen was the topic before a congressional subcommittee, and MSV President Richard L. Fields checked out of his otolaryngologic practice in Alexandria for the afternoon of April 22 to testify on Capitol Hill.

He spoke to the Subcommittee on Health and the Environment of the House Energy and Commerce Committee. Rep. Henry A. Waxman (D-Calif) is chairman of that committee, and Virginia's Thomas J. Bliley, Jr. (R-Richmond), is one of its members. The committee was considering HR2093, introduced by Rep. Ron Wyden (D-Oregon), which would amend the Federal Food, Drug and Cosmetic Act to prohibit, with certain exemptions, the dispensing of drugs by practitioners licensed to administer drugs.

Emphasizing that there are times when a physician needs to give drug samples to patients and certain instances when the dispensing of drugs by a physician for profit is acceptable, Dr. Fields came out

Dr. Fields (center) giving his testimony. On the left, Robert H. Taylor, MD, president, American Academy of Family Physicians. On the right, Michael Weinstein, MD, pediatrician, Ft. Valley, Georgia.

Photographs by Mark Charette

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strongly against unlimited sales of prescription drugs from practitioners' offices. He cited three reasons: protection of the patient, the importance of the pharmacist's role, and the record-keeping drug sales require.

Moreover, he said, the issue should be decided at the state, not the national, level.

Others testifying at the hearing included those shown with Dr. Fields in the photographs on these pages, representatives of the nation's pharmacists and retail druggists, and a spokesman for a national corporation that sells repackaged drugs and pharmacy systems for physicians' offices.

After the hearing, Bliley joined Wyden in framing a revised version of the resolution, HR2168, which 1) exempted HMOs and practitioners living in (undefined) rural areas, and 2) would be null and void in a state with a preexisting statute covering the situation. The new resolution was to be forwarded to the full committee and thence, if passed, to the House.

Following are excerpts from Dr. Fields' testimony:

Listening to Dr. Fields during a recess in the hearing are Daniel Oliver, chairman of the Federal Trade Commission (center), and Nancy W. Dickey, MD, family practitioner in Richmond, Texas, who is chairman of the AMA's Council on Ethical and Judicial Affairs.

"While I believe that it is certainly proper for a physician to give a patient drug samples to get them started on medication until they have a prescription filled, I definitely oppose, for safety and ethical reasons, physicians selling prescription drugs from the office.

"Our first and foremost concern must be the protection of the patient. While most physicians are very ethical people, it is unlikely that the physician would be able to stock the wide variety of drugs kept by a pharmacy. Consequently, the temptation would be for a physician to prescribe the drug he or she has in stock—which might be almost as good—rather than that which is best for the ailment but not kept in the office.

"Secondly, a good checks and balance system now exists between the physician and the pharmacist which would be absent were physicians to sell drugs from their offices. As the system now works in Virginia, the pharmacist calls the physician if there is a conflict with other drugs the patient is taking (as determined through the extensive records now being kept on computer in large drug stores) or if there is a question about the appropriateness of a prescription. Thus the pharmacist serves as a backup for error and also abuse.

"The third reason is one of physician record-keeping. The record keeping required to maintain prescription drugs, some of which may be controlled substances, would be cumbersome and an added burden to what is already an overwhelming amount of paperwork required to run a physician's office today. As a private practitioner.

"There are two instances in which I could consider the dispensing of drugs by a physician for profit to be acceptable. The first is in the case of a physician located in a geographical area where a pharmacy is not available. The second would be when a patient is seen on a holiday or late at night and needs medication immediately but no pharmacy is open.

"I firmly believe that the selling of drugs by physicians from their offices—for profit or otherwise—should be decided at the state, not the national, level because such laws integrally affect the practice of medicine.

However, should Congress decide to pass federal legislation on this issue, I hope you will mandate that the guidelines be administered at the state level, by the Board of Medicine or another appropriate agency."

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MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

BIG RATE HIKE SOUGHT BY ST. PAUL

St. Paul Fire and Marine launched the 1987 insurance rate hike season by asking for an average increase of 47.1% on the mature rates for the company's medical liability claims-made program. The increase would apply to all classifications in all territories, according to a letter to Jim Moore, MSV exec, from Robert P. Tschida, Manager, St. Paul's Medical Services Division, with a proposed effective date of June 28, 1987, for new and renewal business. Tschida's letter also revealed that "effective July 1, 1987, St. Paul will reluctantly begin an orderly withdrawal from the physicians and surgeons professional liability market in Florida...due to our inability to secure regulatory approval for adequate rates."

AMA PRESIDENCY TO BILL HOTCHKISS

In ceremonies on June 24 in Chicago, Virginia's Dr. William S. Hotchkiss is to take the helm of the American Medical Association. He is the second Virginian in a decade to be elected to the top AMA post; the late Richard E. Palmer, MD, Arlington, was AMA President in 1977. The inauguration is to occur in the afternoon before the House of Delegates, with the President's Reception to follow that evening in the ballroom of the Chicago Hilton and Towers.

DRUG DISPENSING IN THE SPOTLIGHT

Doctors selling drugs. That topic generated hearings recently in both the nation's and Virginia's capitals. As reported on pages 326-327 of this issue, a House subcommittee took testimony in Washington on a measure that would prohibit the sale of drugs by most physicians, while the Virginia State Board of Medicine's public hearing in Richmond centered on a proposal that Virginia's Code be amended to allow doctors to sell drugs. Dr. John Boniface, Jr., Galax, chairman of The Medical Society of Virginia's Pharmacy Committee, presented to the board the Society's position, as formulated by the Council at its April meeting, that "current Virginia law discourages the sale of pharmaceuticals by physicians

but provides sufficient flexibility to cover special circumstances," and therefore no change is needed.

ACTION PLANS DOMINATE COUNCIL AGENDA

The drug-dispensing issue shared an action-oriented agenda at the Council's April meeting in Richmond, President Richard L. Fields presiding. Dr. Robert A. Morton presented an action plan developed by the Medical Society of Virginia Review Organization to implement orders handed down by the House of Delegates at its meeting in November. The plan offered revised procedures for sanctioning, admission denials and denial letters, communications, and confidentiality, and the Council liked what it heard. Said one councilor to Dr. Morton, "We've seen great progress since we first started looking at the MSVRO. You've listened to us, and we've listened to you. I think we've developed a real working partnership."...Dr. J. Hayden Hollingsworth reported the Membership Committee's action plan for recruiting MSV members was ready to go, with 869 Virginia physicians targeted for personal contact by members of the component societies in their communities... Dr. Ronald K. Davis's action plan related to the injured infants act passed by the 1987 General Assembly. Carefully framed implementation of the act is imperative, he emphasized, and he enumerated the steps in initiating this new way of compensating medical liability. The councilors approved retention of attorney Larry Framme to help translate the measure into action...From Dr. H. C. Alexander III came the report that the Society's Long Range Planning Committee would retreat to Wintergreen in July to develop an action plan for helping MSV members cope with today's abrasions.

UVa FACULTY OKAYS HMO PROPOSAL

Creation of a health maintenance organization at the University of Virginia Medical Center took a step forward when 200 physicians of the center's clinical staff, voting in closed session, gave the university a consensus to move ahead with the plan. Another crucial opinion, that of the Board of Visitors, was to be sought by Dr. William H. Muller, Jr., vice president for health affairs administration, at the board's meeting late last month.

There are now 20 HMOs licensed to operate in Virginia. That's two more than the total reported in Virginia Medical's Guide to HMOs in the November 1986 issue. The two new ones are Healthwin (Lincoln National Life Insurance Company) and CIGNA Health Plan of Maryland. --A.G.

Public Affairs Report

A BILL ENSURING that physicians cannot be sanctioned without due process under the Medicare review system has been introduced in the House of Representatives (HR 1445) and referred to the Ways and Means Committee. Cosponsors of the bill are Reps. Ralph Hall (D), Charles Stenholm (D), and Beau Boulter (R), all of Texas. Virginia's congressmen should be urged to support HR 1445.

NO CATARACT SURGERY assistants, says the HCFA, unless their help is preapproved by the PRO. The ruling includes fines and suspension for physicians who file claims ignoring the preapproval stipulation.

A FEDERAL APPEALS court in Richmond has upheld a verdict absolving G. D. Searle and Co. of any liability for injuries allegedly caused by its Copper 7 intrauterine device.

DESPITE PUBLIC OPPOSITION to taxpayer-funded federal elections, many senators are supporting the bill (S2) sponsored by Sen. David Boren (D-Okla) that would provide taxpayer financing and further restrict PAC contributions and aggregate PAC financing.

FREER ACCESS to experimental drugs for those afflicted with terminal disease. That's the new attitude at the FDA, which is expected to rule that drugs not yet approved for general use may be prescribed for patients with terminal cancer, heart disease and AIDS and some other conditions for which there is no known treatment.

NO DUES INCREASE for 1988 is the recommendation of the AMA Board of Trustees, but new programs under consideration by the House of Delegates might change the financial picture next year.

HEADED FOR REVIEW by the U.S. Supreme Court is a Tennessee case that imposed sanctions, including legal costs, against an attorney whom the lower courts held responsible for filing a frivolous suit. At issue is the balance between deterring such suits and protecting a plaintiff's constitutional rights for redress.

--W. Leonard Weyl, MD

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JUNE 1987

The Legacy of Arabic Medicine

William Bickers, MD, *Richmond, Virginia*

While the Dark Ages eclipsed Europe, scholarly physicians of the great Islamic empire kept the light of medicine shining. Confidantes of sultans and caliphs, they were men of powerful intellect, whose voluminous writings became source books for generations and whose rich and colorful native language lent itself admirably to translations of Greek and Roman works that might otherwise have been lost.

THE fall of the Roman Empire in 500 A.D. left Europe in chaos. The mighty legions were no more. The Holy Roman Empire that followed was neither holy nor Roman. It was presided over by Pope Gregory and his corrupt and dissipated hierarchy. Gaul was rent by fracticidal wars. England was a warring kingdom of Angles and Saxons. Amid such turmoil the civilized heritage of Greece and Rome was dragged into the dust. Historic towns were sacked, precious libraries destroyed, scholars killed or hounded from place to place.

Into this dark night of the spirit appeared from a most unexpected place a new light. The sands of Saudi Arabia seem to offer little promise of intellectual awakening, but the rebirth of learning did arise there. A new ideology was created to unite the warring and disparate tribes and nations, from Samarkand to the Barbary Coast, from Tibet to Southern France. Under the banner of Islam, Mohammad and his desert warriors carved out an empire which in a single century extended from China to Spain, larger by far than Rome at its peak.

This far-flung empire, with its caliphate in Baghdad, provided the network over which the Arabs were to bring the wonders of Greek and Roman medicine to Western Europe. The Arabic language, rich and colorful in its synonyms and aphorisms, provided an ideal vehicle for translation and transliteration. Within the short span of a century it became the language of science and medicine in Western Europe.

ONE of the earliest Arab physicians to appear on this scene was al Harith ibn Kalada (7th centu-

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Presented in slightly different form as the Walter Reed Lecture before the Richmond Academy of Medicine on February 26, 1986.

ry), who after his graduation from the Nestorian School of Medicine at Ghondishopour in Persia became the private physician to Khusraw II, King of Persia. It was he who was glorified in song and legend in the quatrains of the Persian poet, Omar Khayam. Harith left us many precepts to which we adhere today: "Do not enter a bath on a full stomach . . . Do not eat when angry . . . The most harmful thing for an elderly man is a good cook and a sexy consort."

ANOTHER flower from the garden of Arabian doctors but one with a big thorn was Yuhannan ibn Massawayh (777-857). He threatened to dissect his mentally retarded son and was later held to have secretly done so. Unable to obtain human bodies for dissection, he imported apes from Africa and built a dissecting hall on the banks of the Tigris River. He was the first Arabian physician to perform anatomical dissection and to record his observations and findings.

It was he who introduced into medicine the use of alum, aloes and antimony. He was the first to write comprehensively about leprosy and its contagion and the first to describe pruritus due to allergy to food. He wrote 41 books. He was not only a practitioner but a teacher of medicine, appointed chief of the medical school in Baghdad.

ONE of Massawyh's famous students was Hunayn ibn Ishaaq (792-873). Ishaaq can justly be considered the creator of the Arabian medical renaissance through the excellence and extent of his translations of Greek and Persian. He translated the writings of Hippocrates, Aristotle, Plato, Galen and Oreibasius and also translated the Old Testament from Hebrew into Arabic. Above all, he left more than 100 original medical books. The most important of these is his *Ten Treatises on the Eye*, which is the earliest known systematic textbook of ophthalmology. Lecerc says of him: "He is the greatest figure of medicine of the 9th century. He possessed one of the most excellent intellects and one of the most beautiful personalities that one ever met in medical history."

His books were required reading by the medical students at the University of Montpellier in France as late as 1530. Rabelais was a student there in the 16th century and in his writings made frequent references to Ishaaq. By that time, 800 years after his death, Ishaaq had been translated from Arabic into Latin.

PERHAPS the best known of the early Arab physicians was Abu Bakr Muhammed ibn Zakariyya al Razi (865-923). He is not only the greatest clinician in Arabic medicine but some think the greatest clinician of all time. He was a Moslem from Ray, a suburb of Teheran. He was the first to differentiate between smallpox and measles. In anatomy he was the first to describe the recurrent laryngeal nerve. "This nerve," he wrote, "is sometimes double on the right side." He was the first to recognize the reaction of the pupil to light. In his book, *Habit Which Becomes Natural*, he anticipated Sherrington's and Palov's conditioned reflex. He was instrumental in introducing the use of mercury ointment both among the Arabs and in Europe so that white lead ointment became known in the Middle Ages as "album e-rhases."

Perhaps his most important contribution was the introduction of oral mercurial purgatives. After careful experimental work on the monkey he wrote, "I gave it to a monkey that I had in my house, and he twisted himself about, clenched his teeth and pressed his hands against his belly, but showed no sign of poisoning."

Razi was a very careful and astute observer who recorded innumerable case histories of his patients and their diseases. He described brain abscess following otitis media. He reported one of the first cases of incompetence of the aortic valve. He immortalized Abi Zayd Balkhi, the first patient ever to be described as having recurrent attacks of coryza in the springtime when the roses were in bloom.

In surgery he introduced the all-important use of animal gut as ligature. He had a number of cats about his home; they were his favorite pets. The sutures were made from the dried and dehydrated small intestines of these felines, from which comes the name "catgut" in use to this day. These sutures he employed in surgical procedures and as ligatures on bleeding vessels to replace the hot cautery which had been in general use since time beyond recall. He advised patellectomy for comminuted fractures of the patella. In abdominal surgery he suggested the use of hot moist compresses to cover the intestines while exposed.

Razi was a majestic man of great stature with a large head. A likeness of him may be seen today in the chapel at Princeton University, where a rose glass window is dedicated to him for his contributions not only to medicine but to philosophy and the evolution of human thought.

"The physician should aspire to cure his patient, not take his money only," Razi said, and he prac-

ticed what he preached. He was appointed physician and chief to the Baghdad Hospital and spent his professional life rendering service to the needy. In old age he became quite blind, presumably cataracts. He was advised by one of his former students to let him remove them. The old physician and teacher thought about it for a week or two and then wrote to the student, "I think I will leave it as it is. There is nothing more in this world that I care to see."

One of his last aphorisms and one which might well be quoted today is, "A patient should limit himself to only one physician in whom he has confidence. If he goes to many physicians, he may fall into the combined errors of them all." And one more from his voluminous works: "If you can treat with diet, do not use drugs; when you can use simple drugs, avoid compounds."

This Arab physician left no less than 237 works, including his book on diseases of children, which is the first work on pediatrics. His monograph on smallpox and measles was printed at least six times in Latin. There is a copy in the Richmond Academy of Medicine's Miller Library. It was printed in Gottingen in 1781 and was translated into Greek, French and English. His ten-volume *Medical Treatise* went into no less than ten Latin editions and was still part of the medical curriculum at the University of Frankfurt in 1588.

His medical encyclopedia is a compilation and codification of all medical knowledge available at the time. Despite the fact that he died before it was put into its final form, this greatest medical work ever written by one person was translated into Latin in 1280 as the *Razi Continens*. It went through five editions in Latin and will soon be available once again in Arabic.

The greatest name in Arabic surgery is the versatile Abul Qasim Khalaf ibn Abas al Zahrawi (died 1013), known to the western world as Albucasis. He was born in Spain and graduated from the University of Cordova-Madinata al Zahra, the city of flowers. His famous medical treatises are divided into 30 volumes, the last one encompassing surgery in all of its branches. He was a great clinician as well as the first to describe hemophilia. His surgery is found in the 30th volume of his published works, translated into Latin as *Liber Servitoris*. It went through six Latin editions, the last in 1881.

An amazing surgeon was Albucasis. Reflect for a moment on an Arab physician who wrote in the 9th and 10th centuries and whose works were still standard in the medical schools of Europe 1200 years later. He gave detailed descriptions of surgery in all of its branches, along with clinical and operative records. There were illustrations of over 200 surgical instruments, many of them designed by himself.

But the prince of Arab physicians was the great ibn Sina (980-1037), known to the West as Avicenna. Here are a few of his contributions:

– First to write about the treatment of congenital anomalies.

– Differentiated between benign and malignant thyroid tumors.

– First to describe and perform tracheotomy and suture of the injured trachea.

– First to perform vaginal lithotomy, to crush stones in the bladder.

– Described Pott's disease and Kocher's method of reducing hip dislocation.

– Described cancer of the breast and its removal, preferably by cautery.

– Described the suture of intestinal wounds.

– Was a pioneer in the use of cotton and catgut, which he borrowed from his predecessor, Razi.

Avicenna was born near Bokhara in the small village of Afshena. He was perhaps one of the greatest men the world has ever known. Dante placed him in Paradise. Chaucer has among his pilgrims to Canterbury a physician who carried with him a copy of a work by Avicenna. William Harvey said to a friend one day: "Go to the fountainhead of knowledge and read Aristotle, Circero and Avicenna." Many of Avicenna's ideas may be regarded as modern even today. He wrote about the importance of purifying water; the influence of climate on health and disease; the importance of dietetics; the close relationship between emotions and bodily changes.

Avicenna was the first to introduce urethral drug instillation and the use of vaginal tampons. He tested the strength of drugs by animal experiments. He was the first to describe in detail the muscle insertions of the eyeball. He recognized the contagiousness of tuberculosis. He was the first to mention brain tumors and to differentiate them from meningitis. The world has perhaps never known such a prodigious intellect. He memorized the Koran at the age of 10.

At the age of 57 he wended his way back to his hometown of Hamadan in Persia, where he died soon thereafter. The tomb can still be seen. In my office is a rug made in Hamadan near his tomb. When Avicenna realized that his end was near, he

performed his ablutions as prescribed in the Koran, repented of his sins, distributed his wealth to the poor, freed his slaves, and wrote his last words: "I walked the primrose path in joy and now come to its happy end."

Avicenna's *Canon*, or *al Qanun*, is the most famous medical book of all times. A work of one million words covering all medical theory and practice and coordinating and systematizing all branches of medicine, the book was the medical authority for more than 800 years, second only to the *Fabrica Anatomica* by Versalius. It continued to be read as a textbook at the University of Montpellier and in Louvain at the University of Brussels until 1909, 900 years after it was written.

ANOTHER great name in Arabic medicine is Abu Marwan Abdul Malik ibn Zuhr (1113-1162), who came from an illustrious family of physicians. Like Albucasis, he practiced in Seville, near Granada and the Alhambra. He was the first to describe pericarditis, mediastinitis and paralysis of the pharynx. He recommended artificial feedings via an esophageal tube. He mentioned the itch mite of scabies. He recommended tracheotomy in cases of impaired breathing. He differentiated between drugs of the body and those of the psyche. He was the first to describe in detail the use of contraceptives.

Zuhr was the first physician in the modern sense, i.e., he was not an all-round scholar and philosopher but was concerned only with clinical medicine, relying almost entirely on his own experience, rather than theory. He practiced in the aristocratic manner. When the Caliph Abdul Mun'em was in need of a purgative, Zuhr watered a special grapevine with water containing a purgative solution and when the grapes ripened, gave the caliph his medicine in bacchanalian form. He died of empyema and was buried near his father at the Victory Gate in Seville. His tomb may still be seen.

PERHAPS the greatest Arabian contribution to anatomy was the discovery of pulmonary circulation by ibn al Nafis (1210-1288), whose name means "son of the six-fingered one," derived from the fact that his father, also a physician, had a supernumerary finger. Nafis grew up in Damascus, where he studied medicine. He then moved to Cairo and worked first in the Nasiri Hospital, then in the Mansuri Hospital, where he became chief of staff. He was physician to the sultan. He built himself a fabulous house, all of pure marble, and placed in the courtyard two lions, who padded up and down to protect him against marauders. Unmarried and childless, Nafis bequeathed his money, his beautiful home and his library to the Mansuri Hospital. He died in Cairo after an illness of six days. His physician friends advised him to take a little wine, but he refused, saying, "I will never face my God with wine in my stomach."

Perhaps the most famous writing of Nafis was his *Commentary* on the great Roman physician Galen. Galen thought the arteries were empty and that the blood passed from one side of the heart to the other through septal pores. Ibn Nafis categorically denied this. He said there were no pores in the heart septum and that the blood went from the right heart into the pulmonary artery and then to the lung, where it was aerated and purified in the alveoli to become fit nourishment and returned via the pulmonary veins to the left side of the heart. The *Commentary* first appeared in Europe in a Latin version in 1547; nine years later three European physicians, Servetus, Versalius and Colombo, had described pulmonary circulation, and its discovery is still attributed to them.

A SCHOOLMATE of Nafis was ibn Abi Usaybia (1203-1259), who left us a source book containing information about the lives and works of about 500 physicians, the first 100 of them Greek, Persian and Indian, the remaining 400 from the galaxy of Arabic medicine. Many of the writings and works of these 400 physicians have never been translated into a Western language. In 1883 Muller, the great German Orientalist, edited the book and published it in 600 pages in Cairo.

ATOP Mt. Lebanon, above the cascading waters of the Spring Afka can be seen five courses of stone, all that remain of the crusader castle of Mneitri that once stood there. Here occurred the first consultation between an Arab physician of the East and a physician from the West. In Usamah ibn Munguid's memoirs of the crusaders is the story:

"The Frankish master of the Castle at Mneitri wrote to my uncle, the ruling Emir of Sidon, asking him to dispatch a physician by the name of ibn Thabit." On arrival, Thabit was asked to treat a knight with an abscessed leg and a woman, a scullery maid, who apparently suffered a neurosis. He carefully examined the knight's leg and found a draining sinus; from his description it appears to have been osteomyelitis following a spear wound suffered two years prior. Thabit treated him with hot compresses, diet, warm baths and massage. For the woman he prescribed, rest, mild sedation and warm sponge baths. A group of Italian knights

arrived from Europe. Among them was an Italian physician who expressed dissatisfaction with the Arab doctor's treatment.

He asked the knight with the draining sinus, "Which wouldst thou prefer, living with one leg or dying with two?" The poor knight replied, of course, "Living with one leg." The crusader physician gave his orders: "Bring me a strong knight with a sharp ax." The wounded knight expired following what Thabit thought an extremely crude and unnecessary amputation.

The Italian doctor then turned to the convalescing woman, "This is a woman in whose head there is a devil which has possessed her." He returned the patient to her previous diet of garlic and mustard, which caused, according to the chronicler, "her imbecility to turn to the worse." The Italian physician then made a cruciform incision in her scalp into which he rubbed salt, whereupon the woman "expired instantly."

Of this first medical consultation between East and West Thabit wrote plaintively, "Thereupon I asked the master of the castle whether my services were needed any longer and when he replied in the negative, I returned home to Sidon, having learned of Western medicine what I knew not before."

THE return of the crusaders from the East brought the Renaissance. Europe came to life and the Arab world slipped back into oblivion under the invasions of Genghis Khan and Tamerlane, but the Arabic influence on Western medicine continued in the *Continens* of Razi, which became the encyclopedia of medical knowledge.

Bismah ALLAHU er Rhamin er Rahim. (In the name of God, the most compassionate, the most merciful.)

Special Study of the Hand for the non-specialized clinician

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POINT OF VIEW

"If you choose to use, pay a health tax!"

As man is a creature of addictive vulnerability, we should attempt to convert addictive vices into societal gains. For this reason, wouldn't it be reasonable that smoking a cigarette should contribute financially to finding cures for drug addiction, cancer, Alzheimer's disease, or the debility of aging? We should take a legislative position to direct tobacco revenue to support health research.

The American Medical Association's attack on cigarette advertising[1] has now been joined by federal legislative efforts to outlaw all tobacco advertising.[2]

Elimination of tobacco advertising would aid in restricting new recruits to tobacco addiction and strengthen the resolve of those who are attempting to quit and ex-smokers who suffer from the threat of relapse, but we need additional strategies to aid those addicted to tobacco as well as other substances. Education and social opprobrium, our current primary defense, represent only one approach; we need psychopharmacologic research strategies to prevent or reverse addiction and provide alternatives to prohibition. As physicians, we should seek to assure adequate funding for the National Institutes of Health, Alcohol, Drug Abuse and Mental Health Administration (ADAMHA), a priority that will produce benefits to tobacco users as well as alcohol and narcotic abusers.[3,4]

While tobacco taxation serves to increase consumer costs and thereby decrease use,[5] the main value of excise tax income should be as a source of research support. We should seek to legislate the direct contribution of legally derived tobacco excise taxes to health research. There is precedent for this: Gasoline and automobile taxation contributes $13 billion to federal highway construction as well as mass transit. The chemical industry is now legally and economically responsible for environmental cleanup. Narcotics enforcement takes the ill-gotten gains of drug dealers and distributes the funds for police and educational purposes. User fees pay for public waterways and grazing lands, and airline taxation pays for safer air travel.[6] We need a drug user "pay-as-you-go" which says, "If you choose to use, pay a health tax!"

The yearly cost of tobacco to our health care system is in the range of $22 billion, with federal costs for care at $6.6 billion and lost earnings at $43 billion.[7] Cigarette taxation brings in only $4.6 billion in federal taxes[6] and an equivalent amount in state tax revenue. Based on tobacco's cost to society, it is appropriate for us to insist that the $60 billion tobacco industry substantially aid health research as their grudging price for limited acceptance.

The President and Nancy Reagan have launched a "crusade against narcotic abuse" and there is unanimity of political opinion providing non-partisan support. The total cost of narcotic addiction to our society is estimated at $59.7 billion in 1983,[4] certainly a match for the estimated $65 billion/year cost of smoking cigarettes. In 1986, we spent $54 million for fundamental research in alcoholism and 67.4 million for drug abuse.[8] Now is the time for a major campaign to approach the study of addiction of all types since understanding the basis of drug dependency can lead to successful therapeutic intervention or more rational preventive measures.

Police interdiction, urine testing, educational programs and punitive control are superficial approaches to deeper physiologic and social needs. Increased support for addiction research is a logical step, as the money is available to make this possible in tobacco excises, and if we seek to utilize alcohol excise taxes as well, we have another $5.4 billion to work with.[6] The impact of balanced budget efforts will always threaten the NIH budget, and it would be logical to insulate against cutbacks in health research by using tobacco and alcohol excises to fill budgetary gaps so that health support can maintain itself in periods of economic restraint. As an exam-

ple of the problem, the Reagan administration attempted this year to fund the "drug war" by taking $88 million from the NIH, which would have cost cancer research $15.2 million.[9]

The Carter Center[10] estimates that tobacco use is the leading cause of premature death in the U.S., causing over 1,000 unnecessary deaths each day. Alcohol use is the second leading cause of premature death, one-third of which are automobile accident fatalities. Contrast this with the U.S. Public Health Service's concern for the AIDS epidemic. For AIDS, Congress appropriate $233.8 million, with the United States Public Health Service asking for $351 million for 1987,[11] yet we are spending only $121 million per year for alcohol and hard-drug studies despite an equal, if not greater, concern to our society.

Illegal drug use expenditure is estimated at $110 billion per year, with 60 million marijuana and cocaine users and one-half million heroin addicts in the U.S.[9] This corrupts our society! Common sense calls for a stronger drug research policy dealing with the physiology of addiction to get a fundamental grip on the drug problems we have.

The Surgeon General's campaign for a "smoke-free society by the year 2000" is a worthy one, but we must recognize that there are millions for whom giving up tobacco is extraordinarily difficult. While these individuals pay a personal price for their addiction and add to medical and social costs, cigarette smokers are not evil drug addicts but are our parents, children, friends, relatives and neighbors. While guilt and anti-tobacco propaganda discourage users, most need help beyond our current efforts. How appropriate if tobacco users would rise up in their restricted smoking areas to insist that excise revenue from their addiction be used to help themselves as well as to aid others whose addictive problems damage both the health and ethical quality of our society. The utilization of tobacco and alcohol excises to support health research and provide counter propaganda to a level at least equal to the tobacco and spirits industry advertising budget should be a policy position of the AMA.

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Neurologic Complications of Thrombocythemia: Six Cases and Review

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THROMBOCYTHEMIA (thrombocytosis) with platelet counts above 400,000/mm^3 may occur with exercise or parturition, or after injection of epinephrine. It is also seen after splenectomy or other splenic diseases, malignancy or systemic infections, inflammatory diseases or iron deficiency anemia. Qualitative as well as quantitative platelet abnormalities characterize thrombocythemia.[1] Thrombocythemia is also seen in primary myeloproliferative disorder characterized by persistent thrombocythemia, peak age of onset late middle-age and without predelineation for either sex.

The hematologic and systemic medical complications have been emphasized in the literature, but there has been little information about the neurologic effects of thrombocythemia. I therefore reviewed six cases of thrombocythemia presenting with acute cerebrovascular and other neurologic symptoms and findings. Clinical and hematologic data were correlated in these six cases and compared to 48 additional published case reports.

Patients and Methods

Six patients coming for medical evaluation with neurologic findings were studied at the Massachusetts General Hospital. Detailed history, physical examination and complete neurologic and hematologic evaluations were performed. Complete laboratory investigations were performed in all patients and in some, special platelet studies were also done. Where indicated appropriate neuroradiologic studies were performed.

This study was conducted in part while the author was a resident at Massachusetts General Hospital, Boston, and was reported in part at the 3rd Joint Meeting on Stroke and Cerebral Circulation in New Orleans on February 16-18, 1978. Dr. Bernad is now in private practice at 10721 Main Street, #3500, Fairfax VA 22030.
Submitted 5-7-86.

Criteria for inclusion in the study were platelet counts exceeding 400,000/mm^3, with normal leucocyte count and hematocrit. None of the patients had a malignancy, but some had a myeloproliferative disorder.

Case Reports

Patient No. 1. A 79-year-old right-handed woman had transient right-sided weakness and slurred speech for 30 minutes. Past medical history, general physical and neurologic examination were unremarkable. Urinalysis, VDRL, chest x-ray, EKG, routine laboratory studies were normal. White blood count and hemoglobin were normal. Blood smear revealed numerous large platelets and a platelet count of 1.085×10^6/mm^3. Test of coagulation, including prothrombin time, partial thromboplastin time, bleeding time and platelet aggregation studies, were abnormal (Table 1).

The admission diagnosis was transient ischemic attack with thrombocythemia. Normal studies included dynamic palpation of facial pulses, thermography, ocular plethysmography, ultrasonography of periorbital vascular structures, computerized tomographic scan of the brain and electroencephalogram. Carotid angiogram revealed mild atherosclerosis involving the carotid bulb but without ulceration. During arteriography the patient experienced right-sided weakness and numbness for 15 minutes, and she had five other transient ischemic attacks involving her right side, face, tongue, arm and leg. A hematologist concurred with the diagnosis on the basis of normal physical exam, hematocrit, complete blood count, leucocyte alkaline phosphatase, B12 and consistently elevated platelet counts.

Complications included rectus sheath hematoma and retroperitoneal hemorrhage. Treatment included plasmaphoresis, fresh frozen plasma transfusion, and busulfan. After one month she was discharged asymptomatic and has remained asymptomatic for three years with platelet counts of 300,000, taking only aspirin and sulfinpyrazone. Platelet aggregation improved (Table 1).

Patient No. 2. A 70-year-old right-handed man suddenly had difficulty speaking and reading but could write. On the next day he had numbness and tingling in the right hand for eight minutes. Past medical history revealed that he had had Parkinson's disease for at least ten years, which was treated with right stereotactic thalamotomy. Examination showed features of Parkinson's with right hemiparesis, left Babinski (from thalamotomy) and right hemianopsia on confrontation. Normal studies

included urinalysis, VDRL, chest film, EKG, chemistries, bone marrow, white blood count and hemoglobin. Blood smear showed large platelets and a total platelet count of $1.5 \times 10^6/mm^3$. There was increased uptake in the left occiput on the technesium brain scan. Computerized tomographic scan of the brain showed low absorption lesion deep in the left hemisphere posteriorly.

He was treated with busulfan 2 mg daily. One month later the platelet count was 600,000 and the patient was asymptomatic.

Patient No. 3. A 71-year-old right-handed man presented with an enlarged prostate, urinary obstruction and Parkinson's disease. After perineal prostatectomy he became confused and lethargic with a hemiparesis. Routine chemistries were normal. Platelet count was 873,000. Computerized tomographic scan of the brain showed an infarction in the distribution of the left middle cerebral artery. In an angiogram there was evidence of multiple emboli in the middle cerebral artery. The patient was treated with aspirin and dipyridamole. The platelet count increased to $1.257 \times 10^6/mm^3$ in three weeks. He was then given busulfan 4 mg daily for four weeks. Three years later the platelet count remained at 325,000 and he has been asymptomatic except for his Parkinson's disease.

Patient No. 4. A 50-year-old woman was admitted because of transient ischemic attacks involving hands and face, scalp, eye and cheek as well as nose, chin and neck. She also had numbness in the left leg. Examination and laboratory studies were normal except for platelet count of $1.5 \times 10^6/mm^3$. After treatment with 32P (radioactive phosphorus), platelet count was normal and the patient has remained asymptomatic.

Patient No. 5. A 67-year-old right-handed woman developed global aphasia with dense right hemiparesis, left gaze preference, and right homonymous hemianopia. The patient also had a past history of transient ischemic attacks consisting of dizziness and diplopia. A platelet count was noted to be $1.1 \times 10^6/mm^3$. On blood smear the platelets were large. No other hematologic abnormalities were noted. The computerized tomographic scan of the brain showed increased density in the area of the left middle cerebral territory. Electroencephalogram showed runs of delta activity in the left temporal region. After stabilization, busulfan therapy was contemplated. However, the patient died suddenly and autopsy was denied.

Table 1. Platelet Aggregation Studies Before and After Treatment, Patient No. 1.

		Before	After
2 × λ epinephrine	=	0%	0%
4 × λ epinephrine	=	0%	7%*
8 × λ epinephrine	=	0%	
5 × λ collagen	=	100%	0%
2 × λ collagen	=	0%	100%
4 × λ ADP	=	100%	100%
2 × λ ADP	=	55%	100%
1 × λ ADP	=	0%	100%
0.1 × λ ADP	=	0%	0%

* Delay in second wave

Patient No. 6. A 51-year-old right-handed woman had menometrorrhagia and frequent nose bleeds for three months. She complained of severe throbbing and aching paresthesias in the fingertips and toes especially after exertion. The only abnormal laboratory test was an elevated platelet count of $1.7 \times 10^6/mm^3$ with many large platelets on blood smear. She was treated with busulfan. Neurologic symptoms abated when the platelet count was reduced to normal. She remains asymptomatic three years later.

Discussion

Neurologic manifestation of thrombocythemia have been poorly documented, but in the cases reported,[1-21] neurologic symptoms have ranged from unilateral weakness to hemiplegia and included transient monocular blindness as well as other visual disturbances, seizures, headache, dizziness, diplopia, nausea and vomiting, aphasia, dysarthria, facial pain and tingling and ischemia of the extremities. Platelet counts have ranged from approximately 450,000 to over 4,000,000. Ages have ranged from 30 to 81 years. The majority of patients improved with some form of antiplatelet therapy.[1-21]

Thrombocythemia may be defined as an increased platelet count greater than 400,000 of unknown etiology with normal hematocrit and normal white count and often associated with both thrombosis and bleeding. Gunz separated thrombocythemia from polycythemia vera and other myeloproliferative syndromes.[22]

The hematologic literature cites few neurologic complications. Silverstein[23] studied 15 patients; six had gastrointestinal hemorrhage, one had a subdural hematoma, and four of six deaths resulted from thrombotic complications.

Histologically, the platelets seem large and proliferative in primary thrombocythemia in contrast to the small platelets of reactive thrombocytosis.[24] Large platelets were found in all six of the patients reported here. In one study the bleeding time increased in 14 of 23 patients, while all of the standard clotting tests were normal.[4] The effective thromboplastin generation tests associated with a defect in

platelet formation has been seen but this was not true in the patients studied with thrombocythemia.

McClure founded bleeding time was significantly correlated with platelet number in thrombocythemia[25] and that platelets have decreased adhesiveness, decreased ability for seratonin uptake, and decreased Factor 3 availability.

Spaet et al reported no platelet aggregation with epinephrine, impaired aggregation with ADP, and normal aggregation with collagen[26] but availability of platelet Factor 3 was normal. Seratonin uptake was poor. One patient in the present series showed no aggregation with epinephrine.

Diffuse intravascular platelet aggregation may account for the microvascular symptoms.[19] Prostaglandin synthetic pathways are important both in platelet aggregation and antiplatelet therapy. Exposed collagen at the site of injury activates platelet membrane phospholipase leading to release of arachidonic acid from platelet membrane phospholipids. Arachidonic acid is the precursor of prostaglandins, which mediate synthesis of prostacyclin (by veins and arteries), an inhibitor of platelet aggregation, and thromboxane A2, a potent platelet aggregator that is released by platelets. Control of thrombogenesis depends on a delicate balance between the concentration of these two agents. Platelet suppressive agents are directed at this molecular level of platelet and vascular wall interaction.[30,31]

Some effective therapeutic modalities to decrease high platelet counts are available in the acute situation of thrombosis or bleeding. Rapid diminution of the platelet count can be achieved by thrombocytopheresis[32] for major thrombo-hemorrhagic phenomena in conjunction with administration of nitrogen mustard and busulfan. Seven to nine units of plasma had to be removed to adequately lower platelet counts, and it has been noted that platelet counts rose after each phlebotomy. After 10-14 days the alkalating agents gave adequate long-term control of platelet counts. The thrombocytopheresis promptly controlled the symptoms. Other agents include melphalan (alkalating agent) and 32P. Patients in the current series showed improvement in neurologic symptoms and findings when their platelet counts were decreased. Acetylsalicylic acid and sulfinpyrazone have been used once the platelet count was reduced but also were shown to be effective in controlling minor symptoms prior to reducing the platelet count.

How common are neurologic complications resulting from elevated platelets? There is no clear-cut answer to that question. Thirty-eight patients with platelet counts over 1,000,000 (ranging 1.1 to 5,000,000) were studied retrospectively for 1-24 years. No patient had received any specific therapy to reduce the platelet count. Documented thromotic events in three individual (7.9%) included transient ischemic attacks and stroke.[34] The later study was not a case control study and did not specifically address the issue of neurologic complications in thrombocythemia. A recent report documented a high frequency of neurologic complications occurring in a prospectively studied group of patients with rigidly defined essential thrombocythemia.[34] This was part of the Polycythemia Vera Study Group, which reported a single case with transient ischemic attack, and reviewed the neurologic findings in other cases described in the literature.[34] In the group's findings 21 patients had neurologic manifestations at some point during their course, including headaches (13 patients) paresthesiae (10), posterior cerebral circulatory ischemia (9), visual disturbance (6), and epileptic seizures (2). All patients with neurologic symptoms responded satisfactorily to treatment, although continuous or repeated treatment was often required. The symptoms and findings were very similar to those presented in this paper.

Summary

The patients presented in this study have all shown neurologic complications in association with elevated platelets. The platelets in these patients were abnormal in number and size and did not aggregate normally in vitro. These platelets may be viewed as inherently defective and possibly responsible for the neurologic complications.

All patients with neurologic symptoms and findings should have a platelet count on admission. The platelet function tests are more difficult and expensive to perform routinely. If the platelet count is very high and platelet function abnormal, reducing the absolute count may relieve some of the symptoms and avert a neurologic catastrophe. It is postulated that excessive elevation of platelet count in conjunction with qualitative platelet abnormality may play a key role in the diverse cerebrovascular dysfunction of the central nervous system and may be responsible for certain neurologic symptoms and findings which evade adequate explanation.

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Aorto-Bronchial Fistula 14 Years After Repair of Aortic Transection: Case Report

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FISTULAE between the aorta and lung are rare. We wish to report a case of the late development of an aorto-pulmonary fistula after the Dacron™ graft repair of a post-traumatic false aneurysm of the descending aorta. This case is additionally unusual in that the fistula developed in the center of the graft and not along the anastamosis, as in the majority of cases heretofore reported.[1]

Case Report

B.R., a 34-year-old white female smoker, suffered a severe automobile accident in 1966. In 1970, a false aneurysm of the descending aorta was recognized and repaired with a Dacron interposition graft. In November 1984, she had 4 ounces of hemoptysis during intercourse. Chest roentgenogram showed a 2-cm fibrotic density in the left upper lobe near the descending thoracic aorta that was felt to represent old scarring. Past medical history was significant for a 1973 episode of idiopathic thrombocytopenic purpura. Coagulation studies were repeated and were normal. She was reassured and advised to stop smoking. She failed to do so.

In February 1985 she again coughed up 4 ounces of bright red blood, while straining. Chest roentgenogram was unchanged. Flexible bronchoscopy showed mild changes of chronic bronchitis with flecks of blood scattered throughout the airways bilaterally. No specific bleeding points or endobronchial lesions were seen.

Two weeks later, a third episode of hemoptysis while straining occurred. Physical examination was unremarkable save for a right facial scar, bilateral mammary implants, and a left thoracotomy scar. Chest roentgenogram again showed the left upper lobe medial fibrotic density. The aorta was not enlarged. There was a new bi-basilar alveolar filling process attributed to a blood pneumonitis. Computed tomography of the thorax revealed an irregularity of the descending thoracic aorta. A conventional aortogram demonstrated a 1.5-cm false aneurysm 3 cm distal to the takeoff of the left subclavian artery (Fig. 1).

Fig. 1. Pseudoaneurysm of Dacron interposition graft in descending thoracic aorta.

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At operation a 1-cm false aneurysm arising from the mid-point of the Dacron graft was found, densely adherent to the medial aspect of the left upper lobe. The graft suture lines were intact. Using a heparin-bonded shunt from the ascending to the distal descending thoracic aorta, the Dacron graft was removed and replaced with a 24-mm woven Dacron prosthesis. The medial aspect of the left upper lobe adjacent to the false aneurysm was resected, using a stapling device. The patient's postoperative course was uneventful.

Discussion

Although not generally included in the differential diagnosis, fistulae between an aortic aneurysm and the tracheo-bronchial tree have long been recognized as a rare cause of hemoptysis. The aneurysm may be due to atherosclerosis, syphilis, tuberculosis, or previous operations on the aorta.[2]

Post-surgical aorto-bronchial fistulae were recognized early in the modern era of cardio-thoracic surgery as a complication of aortic operations but remain uncommon. These fistulae usually originate as a false aneurysm at the suture line between the aorta and the prosthesis.[1] The sole previous report of a fistula through the body of a prosthesis developed in an Ivalon™ graft used to repair a coarctation of the aorta.[3] The present case is the first report of an aorto-bronchial fistula arising from the body of a Dacron prosthesis.

Usually these lesions manifest themselves with intermittent painless hemoptysis that is self-limited, at least initially. The major cause of delay in diagnosis is a low index of suspicion, especially when coupled with the presence of a confounding, more common cause of hemoptysis. A long delay between surgery and development of the fistula is not at all unusual, a range of ten months to ten years having previously been reported.[2,3] Chest roentgenograms can be useful in revealing the presence of the aneurysm but most often show only non-specific changes, as in this case. Bronchoscopy can occasionally localize the fistula. Obviously, great care must be taken not to dislodge a clot in the bronchus. In the absence of disease in the ascending aorta, a right-sided bleeding source effectively rules out a fistula.

Although the CT scan prompted our obtaining an aortogram, the findings for the most part are usually not definitive. If the clinical situation warrants, we would favor proceeding directly to an aortogram. Although the aortogram does not usually demonstrate the clot-filled fistula, it often will highlight a pseudoaneurysm, as in this case. It also provides useful information for planning the operative approach. However, should the aortogram fail to confirm the presence of the fistula or aneurysm, we feel an exploratory left thoracotomy is indicated.

The operative team should be prepared for a difficult aortic resection should a fistula be found. A double-lumen endotracheal tube should be used in order to protect the contra-lateral lung from intraoperative bleeding. At present, we prefer a heparinized shunt to systemic anticoagulation. Although local repair of the fistula may be feasible, we would recommend removal of the old graft due to the possibility of infection. The adjacent involved lung tissue should also be resected in order to close the fistula and remove potentially infected pulmonary tissue. A pleural or pericardial flap should be interposed between the new graft and lung to help prevent recurrence.

Summary

An aorto-bronchial fistula developed through the body of a Dacron prosthesis 14 years after its placement for repair of post-traumatic aneurysm. An aorto-bronchial fistula should be suspected in any patient with hemoptysis and previous thoracic aortic surgery.

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VIRGINIA MEDICAL
EDITORIAL

By Any Name, an Illustrious Legacy

ELSEWHERE in this issue is an article by Dr. William Bickers titled "The Legacy of Arabic Medicine." But is it Arabic or Islamic medicine? This question has been asked and commented on over and over again without resolution. Of the physicians Dr. Bickers describes, Rhazes and ibn Sina were Moslem Persians who wrote in the Arabic language. On the other hand, al Harith and ibn Masawayh were Christians, and Avenzoar was of Jewish parents.

Regardless, Dr. Bickers is safe in stating that under Arabic influence progress in medicine was made—not in anatomy or surgery, for the Islamic faith forbids the dissection of human bodies, but in healing and the use of drugs. Also, translation was very popular among Arabic doctors; they translated Syriac, Hebrew, Greek and Roman medical manuscripts into Arabic.

Dr. Bickers writes out of his experience as a Richmond physician who lived in the Middle East and loved its culture and traditions. When I met him, in 1964, after completing my residency in obstetrics and gynecology at Johns Hopkins and joining the faculty of the American University in Beirut, he was chairman of the department of obstetrics and gynecology, a position he held until he retired from it in 1973. Under his leadership the university's residency training program was structured and strengthened, and the faculty grew. He supervised the building of the ob/gyn unit at the American University Medical Center, which was donated by the American people and is one of the most modern such facilities in the world.

Now Beirut is torn by strife, and professors from both the American University and Beirut University College are held hostage, but the legacy of Arabic physicians is secure wherever medicine is practiced.

RAMEZ S. AZOURY, MD

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"The Southern"

IN the June 1980 issue of this journal, the late Harry J. Warthen recognized the centennial of the American Surgical Association, the oldest and most prestigious of the surgical organizations. This year, 1987 marks the 100th anniversary of the Southern Surgical Association, which is second in seniority.

The Southern Surgical and Gynecological Association was organized in Birmingham, Alabama in 1887. Nine founding members were from Virginia.

Hunter Holmes McGuire of Richmond, then the undisputed foremost surgeon in the South, became the second president. Subsequent presidents include the honor roll of Virginia surgery—Johnston, Trout, Bigger, Lehman, Horsley, Muller—to name a few.

The custom still prevails of holding the annual meeting at a well known resort during the off season, when the association can have the hotel all to itself and its guests. The organization is strongly family oriented and the wives traditionally attend the meetings. Thirty-one annual meetings have been held in Virginia, most often at the Homestead in Hot Springs.

Although regional in name and predominently southern, the membership includes prominent surgeons from throughout the United States. Those surgeons from outside the South are recognized leaders who contribute greatly to the strength of the Southern Surgical.

The scientific presentations and discussions are currently published each year in the *Annals of Surgery* (May-June issues). These papers are usually of high quality and many have been landmarks in the progress of modern surgery.

"The Southern" hopes it has lived up to the editorial in the VIRGINIA MEDICAL MONTHLY in 1889 which stated: "The Southern Surgical and Gynecological Association is an organization which is surprising many in the extent of its territory and the vastness of its influence. It was but the second annual session that was held last month in Nashville, and yet, with perhaps the single exception of the American Medical Association itself, there seems to be no association in this country whose ranks are so crowded by men of more than National reputation, and whose proceedings are so abundantly rich in papers, and discussions so practical and valuable."

The Southern Surgical Association continues to maintain its original objective to advance surgery in the South and in the United States.

W. LEVI OLD, JR., MD

7486 North Shore Road
Norfolk VA 23505

Doctor Switching

PATIENTS do switch doctors—often, and there are as many opinions as to the causes as there are stated reasons. Marketing Prescription, a medical research and consulting firm, recently reported the results of a study on the subject (Medical World News/February 9, 1987). The study was conducted in three areas of the United States, i.e., the Southwest, North Central and South; our attention will be directed to results in the South.

According to the study, Southerners change doctors for one of the following reasons:

1. Adequate care is doubtful	24.6%
2. Believe they found better doctor	24.6%
3. Don't like doctor's attitude	16.4%
4. Patient relocates out of area, or doctor relocates, retires or dies	9.9%
5. Can't count on doctor's availability	6.6%

Without a study, it is my educated guess that patients most often switch because they don't like the doctor's attitude, are unable to count on doctor's availability, or because of an inconvenient location. In my present post, I am often asked to recommend another physician; the complaint voiced by the patient in regard to the existing physician rarely mentions the question of adequate care. As to the belief that they have found a better doctor, that categorization might include availability, attitude or inconvenient location.

One must conclude, however, that a successful practitioner is capable, provides for proper patient coverage, and shows empathy for his/her patients. There is not much that can be done in regard to relocation, old age, or death.

E. L. K., JR.

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OBITUARY

Memoir of R. H. Moseley 1943-1986

Richard Hopkins Moseley, MD, a fellow of the American College of Emergency Physicians, died on June 22, 1986, at Riverside Hospital. His unexpected and untimely death was a terrible shock to those who knew him. To his family, of course, the loss is incalculable, and for his partners in the practice of emergency medicine at Riverside Hospital, the emergency department staff, the attending and resident staff and the entire emergency medical services community who had come to know Rick through the years—all were left wondering and questioning each other, "Why was this young and needed individual taken from us so abruptly?"

Rick graduated from Virginia Polytechnic Institute in 1965 and from the Medical College of Virginia in 1969. He did a residency in family practice at Riverside from 1969 through 1972. He was appointed director of the emergency department at Riverside in 1972. He was a charter member of the American College of Emergency Physicians, and also a member of the Newport News Medical Society, The Medical Society of Virginia, and the American Medical Association. Dr. Moseley was one of the region's initial advocates of prehospital advanced life support and the establishment of the Peninsulas Emergency Medical Services Council. He served as the Council's first regional medical director from 1976 until 1982. As a board director and a key medical advisor, he suffered through the trials of the federal grant period and rejoiced in the successes of the region's first cardiac technicians. As operational medical director he provided guidance and support to all of our field technicians in Newport News, Poquoson, and Isle of Wight. He was a key figure in the design of the Riverside Hospital Trauma Center. He was a founding member of James River Emergency Medicine Associates and was boarded by the American College of Emergency Physicians and the American Board of Family Practice.

Rick will be sorely missed and always remembered by those who knew and loved him.

Memoir of Julia Edmunds 1928-1986

By Edward G. Allen, MD

Dr. Julia Langhorne Emmett Edmunds of Clifton Forge, Virginia, died May 13, 1986, at the University of Virginia Hospitals following a sudden illness. She was born in Clifton Forge on June 30, 1928, the daughter of the late Dr. John Morehead Emmett, who was a past president of the Alleghany-Bath Medical Society, of which Dr. Edmunds was an active member.

Dr. Edmunds graduated from Hollins College and the University of Virginia School of Medicine. She was a fellow of the American Academy of Pediatrics and was a member of The Medical Society of Virginia and the American Medical Association. She was on the staff of Alleghany Regional Hospital, was a consultant at Bath County Community Hospital, and served as a visiting instructor in pediatrics at the University of Virginia Medical Center. She was an elder of the Clifton Forge Presbyterian Church and a director of the First National Bank.

A caring and sensitive physician with a very strong work ethic, Dr. Edmunds was constantly available in the service of her patients and her community.

Memoir of T. N. P. Johns 1923-1986

By E. Armistead Talman, MD
Hunter H. McGuire, Jr., MD, and
William W. Regan, MD

Thomas Nelson Page Johns died on April 13, 1986 in Addenbrooks's Hospital, Cambridge, England, after a three-year battle with pancreatic cancer. He was born in Richmond, Virginia, in 1923, the son of a prominent surgeon and the namesake of an aristocratic author.

Dr. Johns graduated summa cum laude from Hampden-Sydney college and earned his MD from Johns Hopkins University, where he was elected to Phi Beta Kappa and Alpha Omega Alpha. He served a six-year residency at Hopkins under Dr. Alfred Blaylock and was recognized there as one of the most promising young surgeons of his generation. After a year's work at the National Heart Institute, Dr. Johns returned to practice in Richmond, where he ultimately dedicated himself to the

development of Johnston-Willis and Chippenham Hospitals, to cultivation of his family, and to leadership of church schools in the Episcopal Diocese of Virginia. All these he did with characteristic grace and perfection.

Dr. Johns' accomplishments were well recognized by his peers. He served as vice president of the Southern Surgical Association and president of the Eastern Surgical Society. He formed lifetime friendships with many leading British surgeons, by whom he was elected to the James IV Association of Surgeons, and he organized tours of outstanding British departments of surgery. Although he was not an alumnus of the Medical College of Virginia, he was a vigorous supporter of its department of surgery.

Dr. Johns was a mover of people as well as bricks and mortar. In collaboration with Dr. Thomas Frist, Sr., and Mr. Jack Massey, he was instrumental in the participation of Johnston-Willis as one of the initial eleven founding hospitals in the inception of Hospital Corporation of America. This endeavor resulted in the immediate construction of Chippenham Hospital as the first community hospital south of the James River. Subsequently, in 1980, a spacious new facility was provided for Johnston-Willis, no doubt in response to Dr. Johns' vital contribution as one of two physician-directors on the board of Hospital Corporation of America.

He was a member of the boards of the Science Museum and the Bank of Virginia, and as a participant on the Executive Committee of Blue Cross and Blue Shield of Virginia, he was one of the principal architects of its merger with Blue Cross of Southwest Virginia. He was a former president of the Deep Run Hunt Club, vestryman of St. Stephen's Episcopal Church, and member of the boards of the Commonwealth Club and the Boys Club of Richmond. He served as chairman of the board of governors of St. Christopher's School for six years, and at his death he was trustee and president of the seven church schools in the Episcopal Diocese of Virginia.

No less outstanding was Dr. Johns' exceptional technical ability. He was particularly facile and gifted in surgery of the thorax, where cancer, no matter how extensive, was perceived as *his* enemy as well as the patient's.

Fortunately, Tommy was inspired by a lovely and understanding wife, Helen, who was the essential ingredient in raising six children. As if these half dozen were not enough, the Johns' home was invariably full of guests, usually of international persuasion. In addition, for over 20 years Dr. and Mrs. Johns fostered the summer externship of a number of Scottish, Irish and English medical students who brought wit and intellect to the Johnston-Willis community.

One of Dr. Johns' guiding principles was to make this world a better place for the youth of today. He felt that values derived from the church schools emphasized "accepting victory and success with equanimity, and failure and adversity without despair, a belief in something greater than one's self and a genuine concern for others." These qualities were reflected in his own work.

For his exemplary contributions to the medical and educational endeavors of the Richmond community, for the strength his heritage and family provided him, and for the direction he gave to us, we shall forever remain indebted.

• **Lorenzo A. Demaurizi, MD,** Ashland; Facolta di Medicine e Chirurgia del Universita di Bologna, 1956; age 58; died December 14, 1986. He was a surgeon at McGuire Veterans Administration Hospital, Richmond.

• **William Nelson Evans, MD,** Tazewell; University of Virginia School of Medicine, 1931; age 54; died March 19, 1986. He practiced radiology in Norfolk and Richlands.

• **Gerald John Fisher, MD,** Alexandria; State University of New York, 1944; age 66; died August 16, 1986. He practiced internal medicine and urologic surgery.

• **Herman Melville Kunkle, MD,** orthopedic surgeon in private practice in Portsmouth; Medical College of Virginia, 1944; age 67; died March 12, 1987.

• **Robert Bernard McEntee, MD,** Richmond; Bowman Gray School of Medicine, Wake Forest college, 1953; age 59; died December 18, 1986. He practiced internal medicine and urologic surgery.

• **John Holloway Milam, MD,** Winchester urologist; Duke University School of Medicine, 1958; age 52, died January 14, 1987.

• **Alfred Benjamin Miller, MD,** Norfolk dermatologist; Jefferson Medical College, Thomas Jefferson University, 1937; age 74; died June 6, 1986.

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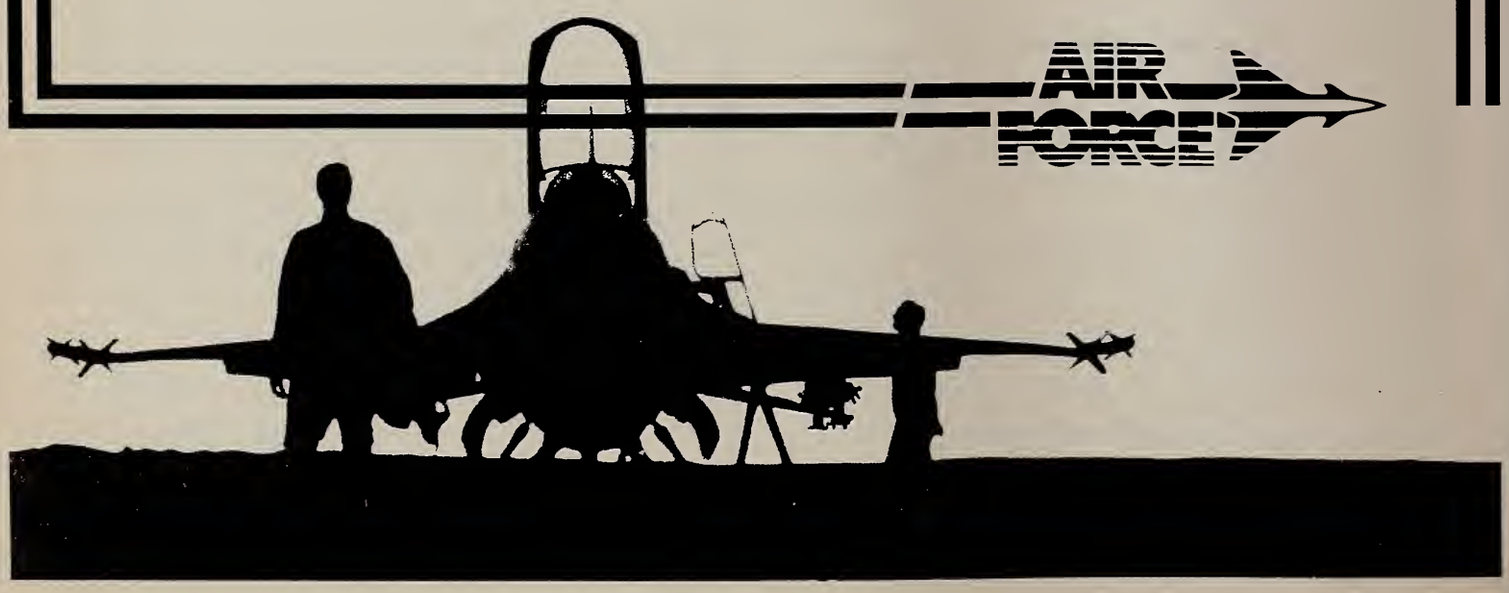

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LETTERS

"I will pay my $250 to help fund the act willingly"

There has been much discussion, often heated, about the merits and drawbacks of the injured infants act recently enacted by the Virginia legislature, and I would like to add my view to those already expressed.

Obviously, there is no single perfect solution to a problem as variegated as that of the child born with defects. There is unavoidable trauma to the parents, and their natural urge is to strike out at any target of convenience, whether for revenge or for economic compensation, or both. When this takes the form of a medical malpractice lawsuit, the obstetrician is in a vulnerable position, as we all know. The major differences between the "bad baby" case and any other malpractice case, as we also know, are that the baby's life expectancy is longer and the need for care is therefore more prolonged, and when one adds the emotional impact of the injury to an innocent child, the psychological reaction of the jury often results in huge awards for economic damages and in unrealistic awards for pain and suffering, intended more to punish the doctor than to care for the child's needs.

Now a first step toward restoring rationality to the process has been taken. At last we have a procedure that does not require the agonizing psychological destruction of the doctor, while allowing the patient's needs to be attended to.

The Medical Society of Virginia, and indeed the entire medical profession, owes an inestimable debt of gratitude to Dr. Ronald Davis and everyone who helped him get this law passed.

The objections of the non-obstetricians among us are short-sighted, I believe, and I will pay my $250 to help fund the act willingly. In my view, if we can do anything to soften the blow to our obstetrical colleagues, we should be happy to have the opportunity to do so. Surely, we all must realize that ultimately anything that helps a segment of us must eventually help all of us. Historically, a major reason we are so besieged is that we doctors have tended too much to be concerned with our own particular problems and have almost uniformly failed to unite against our attackers.

The injured infants act is not the answer to the entire range of problems flowing from medical malpractice, but it is a beginning. I think we physicians should welcome and support it.

I. N. Sporn, MD

1400 Westwood Avenue
Richmond VA 23226

"The whole country will be watching this pioneering legislation"

I note in the Medibytes section of VIRGINIA MEDICAL's May issue[1] some complaints from pockets of physicians around the state about the MSV-created injured infants act.

I have been involved in trying to bring more sense to the matter of tort liability for personal injury (including, but not limited to, medical malpractice insurance) since 1963. As such, I've consulted and testified in most states of the Union and at the federal level. In my practiced view, the Virginia injured infants bill represents a striking—and, in large measure, unique—achievement: all too rare in the recurring furor over liability across the country, a balanced reform was passed in Virginia whereby relief from the wild uncertainty of tort liability was granted both to injured parties *and* health care providers. This relief was imaginatively provided in

Virginia's Governor Gerald L. Baliles signs into law HB 1216, the injured infants act. Behind him, from left to right: Del. "Chip" Woodrum, the bill's patron; Dr. L. Daniel Crooks, Jr.; Sen. William F. Parkerson, Jr.; Dr. Richard L. Fields, MSV President; Dr. Ronald K. Davis, Chairman, the MSV Professional Liability Committee; and Dr. Edward E. Gahres.

the bill in that health care providers do not face the vicissitudes of tort liability for the most serious cases of injured infants but, in a healthy *quid pro quo*, help provide assured compensation of essential expenses for such infants.

Such a solution to medical malpractice insurance is bound to have more appeal to the public—and therefore to legislatures—than those constantly being urged by insurance companies and their institutional insureds that simply 1) make it harder for injured parties to establish liability or 2) pay them less once they have established same. Rather, the Virginia injured infants statute assures that dollars misspent under common law in compensating lawyers on both sides and some parties (after interminable delay) far beyond their actual losses, will be much better spent in promptly compensating badly injuried parties for actual losses.

The whole country has been struck by this pioneering, sensitive, and sensible legislation and will be watching with intense interest as experience under it unfolds.

Jeffrey O'Connell
John Allen Love Professor of Law
University of Virginia
Charlottesville VA 22901

1. Medibytes: Some differences of opinion. Va Med 1987;114:267

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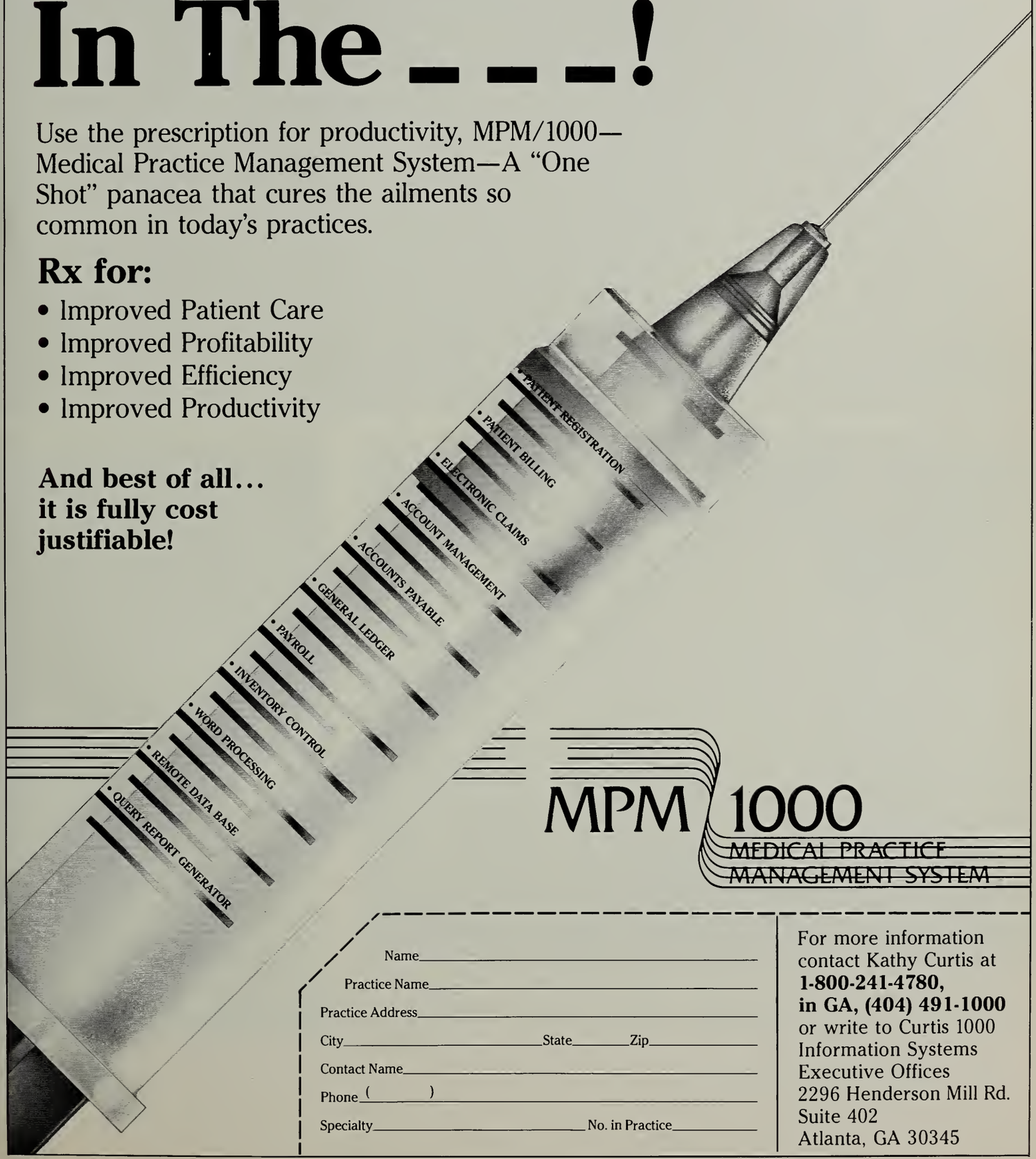

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Calling on Congress

Carrying on a tradition begun 25 years ago, The Medical Society of Virginia's officers and councilors paid their annual May visit to Congress. Once again luncheon for the legislators was the magnet, drawing the Virginia delegation to the Mike Mansfield Room on the Senate side of the Capitol Building. There the physicians and their representatives and senators renewed connections, enjoyed the good food, and talked politics. President Richard L. Fields presided and did the speech-making honors. His address appears on the next two pages.

► Dr. Fields, left, with Rep. Stanford E. Parris (R-Fairfax). Partially visible at right is Dr. Ira J. Green.

► From left to right, Dr. William W. Regan, Congressman Thomas Bliley, Jr. (R-Richmond), and Dr. George H. White, Jr.

▲ Dr. Edwin J. Harvie, Jr., left, and Dr. Glenn B. Updike, Jr., right, with their congressman, Rep. Dan Daniel (D-Danville). Behind Dr. Updike is Dr. William J. Hagood, Jr.

Photographs by Mark Charette

◀ Rep. Own B. Pickett (D-Virginia Beach), left, and Dr. Frederick K. McCune.

▲ Rep. Herbert H. Bateman (R-Newport News) and Dr. Harold L. Williams.

In the year 2007, who will want the stripped-down Chevrolet?

The following is excerpted from MSV President Richard L. Fields address on May 20 in Washington at the Congressional Luncheon given by the Society's leadership in honor of Virginia's senators and congressmen.

LET'S take a look 20 years into the future, from one doctor's perspective. It's 2007, and one area that's completely out of control is the issue of professional liability. I would have thought the straw to break the camel's back and get us all working in the same direction was when our scouting organizations were almost forced to disband because they couldn't get insurance for their troop leaders. Congress passed emergency legislation providing them with blanket protection, but it was close. Physicians, or at least most of them, can still get insurance, but the cost has made many of us wonder if medical practice is really worth it. For example, my medical malpractice insurance premiums this year are almost 50% of my total cost of doing business—and I'm not even in a high-risk specialty. But this has been coming for a long time. I guess it reached its peak in the mid-90s and I think it was about '98 when there was a concerted effort at the congressional level to get some substantial tort reform legislation passed. There were many supporters and we came close, but we didn't quite make it through Congress, and no one has dared bring it up since.

I'm also saddened to report that, out of approximately 20,000 physicians now living in Virginia, we're down to only about 300 still in private practice, either solo or small groups. It was about '91 or '92 when federal legislation gave such favorable tax treatment to HMOs and other large groups that it virtually forced the small medical practice out of business. Of course there are a few stragglers left, a few old geezers like me who persist in believing that the personal touch provided by a small practice is best for patients, and, against the odds and certainly against the common sense of our pocketbooks, we stay by ourselves or in small groups.

For the past 30 years, as our society grew older and its health needs greater, the government has been trying to ratchet down the funds spent for services the medical community provides for America's health needs. In the name of cost savings, budgets have been tightened and, because good medical care is not cheap, that's always been one of the first places government budget balancers look. By cutting budgets and placing stiff restrictions on who can qualify for various procedures, we've severely cut back on usage of health care and so proportionately reduced the amount we spend on health care per person. Some think that's for the good. I disagree. There's almost no practice of preventive care any more for this very reason.

And the lines and waiting lists for Medicare patients! I can't tell you how hard it was for me to tell my office manager's husband, who is a retired mechanic on Medicare, that even though his wife works for a doctor, he'd have to wait nine months to have his knee operation—non-emergency surgery—even though he can't walk over a couple of blocks at a time. And I don't even go down the street where my neighborhood clinic is located anymore. I can't bear to see the lines of elderly people waiting to get in.

The frustration is almost unbearable at times, especially considering the tremendous advances made in medical science toward the end of the 20th century that allow us to do so much to help people. We can now detect and in many cases prevent, most birth defects. We can also, with appropriate testing and treatment, prevent or cure Alzheimer's disease. And most cancers can now be cured. The treatments are there but in the name of cost con-

sciousness we're often not allowed to provide them.

It reminds me a little of 20 years ago in 1987, when the medical community was desperately trying to get government and business to pay for mammograms for women. We cited the anguish mammographs could prevent, not to mention the later expense incurred if breast cancer was not detected early enough and after years of effort, everyone finally saw the light on that one. It did finally happen.

There was another development recently that I believe particularly significant, and that was when laws were passed preventing organ transplants, in vitro fertilization studies, genetic engineering and other such research, all in the name or morality. Now, I have nothing against morality and I'm sure we could argue all day about the merits, or the lack thereof, of some of these types of research, but I can't help but wonder what the impact will be of this total prohibition on such innovative research.

Fortunately, we had a breakthrough a couple of years ago with a vaccine to prevent AIDS. After the terrible epidemics of the '90s there was so much public pressure all over the world that governments had no choice but to allocate more monies for AIDS research. The far-sighted French developed the vaccine, you will recall, but because of bureaucratic delays and the fear of liability, no American firm would market it, so it's being marketed by a Swiss firm.

On a different note, I'd be remiss if I didn't mention the historic steps finally taken in the year 2000 to put the Social Security and Medicare systems back on solid ground. Congress took a courageous step in adding a reasonable means test for Social Security/Medicare benefits. This legislation finally stabilized the systems, ensuring that those who were truly needy continued to have access to quality care and the basics of life.

On another subject, it is important to stop waste and abuse in health care spending, but I don't agree that costs are much out of line if kept in perspective. Let me use an analogy to illustrate.

In 1987, a Chevrolet cost about $12,000. It wasn't luxurious, but it did have extras like air conditioning, power steering and AM-FM stereo. A Chevrolet, in this year of 2007, costs about $40,000. But look what you get. Radar guidance and electronic accident avoidance systems are standard, as well as air bags and body shells and glass virtually impervious to damage. You get 50 miles per gallon, diagnostic aids, TV, phone and computer. Any automobile for $12,000 today would be a vastly stripped-down model, and most people would think it worthwhile to pay the difference.

Medicine's like that, and most people want and deserve the $40,000 model of care. After all, would you want to settle for living with the terrible pain from a disintergrated disc in your back when you knew that laser surgery techniques just developed could solve your problem—and on an outpatient basis?

That is, if you had the choice.

But now it's time to go back to 1987.

All the negatives I talked about won't really happen. But neither will all the positives unless we work together responsibly to ensure continued medical progress.

You are a capable and hard-working congressional delegation, and we at The Medical Society of Virginia pledge as citizens and as physicians that we will continue to take seriously our responsibility of working with you as you address tomorrow's challenges. Together we can ensure a happier and healthier 2007.

Richard L. Fields, MD, President
The Medical Society of Virginia

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Public Affairs Report

VaMPAC WAS THE FIRST state PAC to achieve a 5% increase in membership in 1987. Political awareness and participation is on the upswing among Virginia physicians and their spouses.

"THE BLAME GAME: How Shin-Kicking Litigation is Hurting All of Us," written by Jeffrey O'Connell and C. Brian Kelly and published by Lexington Books, is off the presses. The book recommends a new national tort code, modeled on no-fault principles. [See Professor O'Connell's letter on page 386 of this issue.]

SHARING THE SPOTLIGHT with Bill Hotchkiss at his inauguration as AMA President last month in Chicago was The Medical Society of Virginia's delegation, which at ten delegates and ten alternates is the eighth largest in the AMA House. The 27-member California delegation is the largest. Dr. Michael A. Puzak, Arlington, is chairman of the MSV delegation.

HCFA HAS AGREED on changes in the PRO sanctioning process which will assure physicians due process prior to the institution of sanctions. This agreement is the result of intensive AMA negotiations and should assure fair treatment for health-care providers.

HOUSE DEMOCRATIC LEADERS have put a bill to add catastrophic health care to Medicare coverage on a fast track after recent approval of the plan in the Ways and Means Committee.

A RECENT POLL BY Richard Wirthlin, President Reagan's pollster, indicated that AIDS ranks sixth in the list of topics that most concern Americans. In 1986 it was not even a consideration among most respondents. The first five concerns were the arms race/nuclear freeze, war/world peace, the economy, unemployment, and deficits/federal debt.

--W. Leonard Weyl, MD

PHYSICIANS, SCHEDULE SOME TIME FOR YOUR COUNTRY.

Many physicians would like to devote some time to their country in a local Army Reserve unit. We know that making a weekend commitment can be difficult for most physicians. So it is practical for the Army Reserve units to be flexible about time. It's worth discussing.

Incidentally, in addition to satisfying your own desire to serve your country, there are exceptional opportunities to do something totally different from a day-to-day routine. Opportunities to study new areas of medicine, meet new people in your specialty, and be a part of one of the world's most advanced medical teams.

Discuss the opportunities with our Army Medical Personnel Counselor.

FOR SURGEONS LOOKING FOR A CHALLENGE.

Your challenge could be the Army Reserve unit near you. It's a unit that requires the services of surgeons.

You may wish to explore the challenge of teaching in a major medical center. You may wish to explore the special challenges of your specialty in triage. Certainly you'll be confronted by challenges very different from your daily routine.

You'll also have an opportunity to participate in a number of programs in which you'll be able to exchange views and information with other surgeons from all over the country.

The Army Reserve understands the time demands on a busy physician, so you can count on us to be totally flexible in making time for you to share your specialty with your country. We'll arrange your training program to work with your practice.

To find out about the benefits of serving with a nearby Army Reserve unit, we recommend you call our Army Medical Personnel Counselor.

PHYSICIANS, THERE ARE TWO KINDS OF FLEXIBILITY IN THE ARMY RESERVE WE THINK YOU'LL LIKE.

One, time. We know how tough it is for a busy physician to make weekend time commitments. So we offer flexible training programs that allow a physician to share some time with his or her country. We arrange a schedule to suit your requirements.

Two, the opportunity to explore other phases of medicine, to add a different kind of knowledge—the challenge of military health care. It's a flexibility which could prove to be both stimulating and rewarding, with the opportunity to participate in a variety of programs that can put you in contact with medical leaders from all over the country.

See how flexible we can be, call our Army Medical Personnel Counselor.

ARMY RESERVE. BE ALL YOU CAN BE.

HERE'S ONE DOCTOR WHO WON'T PAY HIS MALPRACTICE PREMIUMS THIS YEAR.

The Army covers his premiums. Since he's an Army Physician, there are a lot of worries associated with private practice that he won't have to contend with. Like excessive paperwork, and the overhead costs incurred in running a private practice.

What he will get is a highly challenging, highly rewarding experience. The Army offers varied assignments, chances to specialize, or further your education, and to work with a team of dedicated health care professionals. Plus a generous benefits package.

If you're interested in practicing high quality health care with a minimum of administrative burdens, examine Army medicine. Talk to your local Army Medical Department Counselor for more information.

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Monoclonal Antibody: New Probe for Sexual Assault Evidence

Robert J. Evans, MD, Robert S. McGee, PhD, Theresa A. Sommers, Deborah H. Koons, William M. Sutherland, PhD, Mark Sigman, MD, and John C. Herr, PhD, *Charlottesville, Virginia*

The new MHS-5 monoclonal antibody, which recognizes an antigen of seminal vesicle origin, offers greatly enhanced sensitivity when used with an enzyme-linked immunosorbent assay and thus becomes an important tool in the analysis of sexual assault evidence. Presently in use by the FBI and Scotland Yard, the antibody is being produced commercially for application in hospitals and state crime labs throughout the United States.

In 1985, there were 87,340 forcible sexual assaults against women reported in the United States.[1] This figure has been estimated by the FBI to be one-fourth to one-third of the actual number of rapes committed.

From each sexual assault, multiple pieces of evidence are obtained, including samples cut from the victim's clothing and undergarments, dried swabs of the vaginal, anal and oral mucosa, hair and fiber samples, and scrapings from solid surfaces, cloth and fabric from the crime scene. Multiple forensic tests are performed on this evidence in an attempt to identify spermatozoa and/or seminal fluid.

In current forensic practice, tests for prostatic acid phosphatase,[2] prostate specific antigen,[3] and microscopic evidence of spermatozoa are commonly employed for the positive identification of human semen. The test for prostatic acid phosphatase is of limited usefulness. Endogenous vaginal acid phosphatase exists at such levels that the upper limit of the range of vaginal acid phosphatase concentrations overlaps with the lower limit of the range of seminal fluid acid phosphatase.[4] In addition, the acid phosphatase activity of seminal stains declines

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This is an abbreviated version of the paper that won the Annual Medical Society of Virginia House Officer Prize for 1986 and was presented during the scientific program at the Society's annual meeting in Williamsburg on November 7, 1986. The original, detailed version of the Materials and Methods section is available on request from Dr. Evans.

by 50%-80% when stored at room temperature for several months.[4] For these reasons, the assay for acid phosphatase is considered by forensic specialists to be a presumptive rather than a diagnostic assay for semen.

One current assay considered to be diagnostic for semen involves the prostate specific antigen p30, a 32 kd protein of prostatic origin which has been identified with polyclonal antisera since 1978.[3,5] In current forensic practice, this semen-specific marker offers some advantages over prostatic acid phosphatase[2,3] and is widely employed. A monoclonal antibody to p30 is available[6]; however, its application to forensic casework has not been reported. The microscopic identification of spermatozoa in sexual assault evidence is difficult because spermatozoa deteriorate with time until they are unrecognizable and often remain adherent to the cloth and fiber samples being tested. These difficulties often result in the failure to identify spermatozoa, according to the FBI.

Because a certain number of men are known to lack spermatozoa in the ejaculate due to aspermia, azoospermia or vasectomy, a sensitive test for small quantities of seminal fluid would be ideal to insure a positive identification of seminal material when sperm are absent. The two major male accessory sex organs, prostate and seminal vesicles, contribute 15%-30% and 50%-80% of the ejaculate volume respectively.[7] Because of their relatively large contributions to the total ejaculate volume, secretions of these organs are prime candidates for forensic semen markers.

A new monoclonal antibody has been developed that recognizes an antigen of seminal vesicle origin. This antibody was developed in conjunction with the FBI for use by the forensic community to detect seminal fluid in cases of sexual assault.

Materials and Methods

Conventional procedures were used to produce a panel of monoclonal antibodies to human sperm.[8] BALB-c female mice were immunized with sperm from blood type O human sperm and the mouse spleen cells were fused with the myeloma cell line SP2/0.[9]

An enzyme-linked immunosorbent assay (ELISA)[10] was developed to screen the culture supernatants for antibody activity.

Hybridomas that elicited positive binding to sperm were expanded and cloned by the limiting dilution method.[11] Twenty-five stable IgG secreting antisperm hybridoma lines were established. Culture supernatants from these lines were screened by ELISA for binding to normal healthy male's seminal fluids from which sperm had been cleared by centrifugation. Nine monoclonal antibodies were found to bind to normal sperm-free seminal fluid. These antibodies were then screened against vasectomized donor's seminal fluids. Five monoclonal antibodies were reactive with seminal fluid from vasectomized men. One of these five hybridomas, clone MHS-5 (mouse anti-human sperm-5), was utilized for all additional studies.

Serum, saliva, milk, amniotic fluid, mucous, male urine, vaginal secretion, sexual assault evidence, seminal fluid from normal donors, and seminal fluid from vasectomized donors were tested. The ELISA assay was utilized to determine whether the epitope recognized by the monoclonal antibody was present in any of these human biological fluids.

Primate semen obtained from the Yerkes Primate Center as well as semen from common domestic animals were also tested for the MHS-5 antigen by ELISA.

Seminal fluid and cervical fluid of known protein concentration were mixed in varying ratios from 50/50 to 0/100 (seminal/cervical). After incubation at 34°C for 4 hrs, each mixture was assessed for presence of the MHS-5 antigen by ELISA. Bovine serum albumin (BSA) at the same concentration was employed as a negative control.

Seminal vesicle, prostate, testis, epididymis, kidney, liver, spleen, and pancreas were obtained from ten cadavers. Homogenates of the tissue were evaluated by ELISA for reactivity with the MHS-5 antibody.

Epididymal sperm obtained at vasovasostomy and orchiectomy underwent sperm-coating ELISA. Sperm from normal donors, seminal fluid from vasectomized donors and protein from autopsied seminal vesicles were used as positive controls, with BSA as the negative control.

Epididymal sperm obtained at vasovasostomy were incubated for 2 hrs at 37°C with seminal vesicle secretions obtained from cadavers or with seminal fluid from vasectomized donors was assessed for reactivity with the MHS-5 antibody by ELISA. Seminal fluid from vasectomized males and seminal vesicle secretion from cadavers were used as positive controls with BSA as the negative control.

To test the MHS-5 monoclonal antibody on simulated forensic evidence, ejaculates from 15 normal donors were dried onto cotton cloth and stored at room temperature for one week. Thirty cloth samples from actual forensic casework were obtained

from the FBI after storage at room temperature for 1-5 months. Proteins from 1-cm squares cut from both the simulated and actual evidence were eluted in saline and tested for antibody reactivity by ELISA.

Normal seminal vesicles obtained during radical retropubic prostatectomy were formalin-fixed and embedded in paraffin. An avidin-biotin-peroxidase staining technique was used to test for the presence of the MHS-5 antigen.

Results

The MHS-5 monoclonal antibody is an antibody of the IgG 1 subclass.[12] It bound to the seminal fluids of all 421 donors tested by ELISA, including 21 semen samples from vasectomized men. No ejaculate has yet been found which did not test positive for the MHS-5 antigen. The finding of the MHS-5 antigen in both vasectomized semen and on washed ejaculated sperm suggested that the epitope recognized by the antibody originated from the male reproductive tract distal to the mid-portion of the vas and bound to the sperm upon ejaculation.

An ELISA assay, where seminal fluid protein concentration and dilutions of the MHS-5 monoclonal antibody were varied, demonstrated that using the antibody containing ascites diluted 1/100,000 in buffered saline, optical density (OD) readings of 2 or greater were obtained on plates coated with solutions containing as little as .38 ng seminal protein. Negative control plates coated with BSA over the same concentration range and plates which were not coated with primary antibody to assess the nonspecific binding of the secondary antibody gave OD readings from 0.1 to 0.2. A criterion of OD readings twice the BSA-coated control-well readings was established as the standard for a positive identification.

ELISA was utilized to determine whether the epitope recognized by the monoclonal antibody was present in any other human biological fluid. The reactivity of MHS-5 with human seminal fluid was compared to several other human biological fluids at varying protein concentrations (Table 1). The MHS-5 ascites was employed at a 1/100,000 dilution. The other biological fluids tested gave OD readings at the background levels typical of BSA-negative controls 0.1-0.2, while OD readings of 2 or greater were obtained on wells coated with seminal fluid from normal and postvasectomy donors and on wells coated with sexual assault evidence obtained from the FBI. Of particular forensic interest is the finding that the MHS-5 antigen could not be detected in human serum, saliva, vaginal protein, cervical mucous or human milk. Thus far the MHS-5 antigen has been undetectable in any other human biological fluid.

Table 1. Results of ELISA Tests for MHS-5 Antigen on Biological Fluids.

Type of fluid	No. of samples	Results
Human		
Semen	421	+421
Serum	15	−15
Saliva	16	−16
Amniotic fluid	11	−11
Milk	6	−6
Vaginal secretion	12	−12
Cervical mucous	11	−11
Nasal mucous	3	−3
Urine - male	5	−5
Urine - female	3	−3
Bile	1	−1
Sweat	1	−1
Non-human		
Rabbit semen	3	−3
Sheep semen	1	−1
Dog semen	1	−1
Pig semen	1	−1
Rhesus monkey semen	1	−1
Cat semen	1	−1
Goat semen	1	−1
Squirrel monkey semen	1	−1
Bull semen	1	−1
Stallion semen	1	−1
Gorilla semen	1	+1
Chimpanzee semen	3	+3
Orangutan seman	1	+1
Mouse seminal vesticle fluid	3	−3
Rat seminal vesticle fluid	2	−2

Although only a few nonhuman primate semen samples have been tested, the MHS-5 antigen was not detected in rhesus (*Macca mulatta*) or squirrel (*Saimiri*) monkey but was found in gorilla, chimpanzee and orangutan semen (Table 1). The levels of the antigen in these Pongidae species appear to be comparable to levels in human semen. It is of evolutionary interest to find this antigen in several pongids, which are close human relatives, and not in members of more distantly related primate species. Although the ideal forensic semen marker should be one which cross-reacts with no other animal's semen, the cross-reactivity with semen of closely related primates should not detract from the application of the monoclonal in forensic analysis of sexual assault evidence.

In order to discover if the MHS-5 antigen was masked or rapidly degraded in the presence of vaginal or cervical proteins, various ratios of seminal protein to vaginal/cervical protein were pre-

pared, allowed to incubate together for 4 hrs at 37°, and then analyzed by ELISA. With an OD reading twice the BSA control considered a positive reaction, it was possible to detect as little as 0.1 μg of seminal protein in 1.9 μg of vaginal protein (19:1 ratio).

In order to identify the tissue of origin for the MHS-5 seminal antigen, homogenates were made of various reproductive tract organs obtained at autopsy. Seminal vesicle, prostate, testis and epididymis specimens were obtained within several hours of death to minimize necrosis and antigen autolysis or displacement. No attempt at preselection of autopsy material was made and specimens from patients who died from a variety of diseases were tested. There was no upper limit placed on the age of the patients tested, but all were postpuberty. Since earlier studies showed that vasectomized semen contained the antigen, prostate or seminal vesicle were considered likely sources of the antigen. Seminal vesicle homogenates gave OD readings of 2, whereas homogenates of other reproductive tract organs gave OD readings similar to the background negative control values, indicating the MHS-5 antigen is located in the seminal vesicle. To further verify the specificity of the monoclonal antibody for seminal vesicle, homogenates were made of kidney, pancreas, spleen and liver, which upon assay gave background OD readings indicating absence of the MHS-5 antigen.

To specifically study the MHS-5 antigen's association with epididymal sperm, samples from the cauda epididymidis were obtained from one patient at the time of vasovasostomy and another patient during orchiectomy. These sperm were plated onto microtiter wells at the same concentration as ejaculated sperm (10^5 well), and the binding of the MHS-5 antibody to the two populations of sperm was compared. Epididymal sperm (as well as the epididymal homogenate noted above) gave OD readings similar to the BSA-coated control wells, indicating that epididymal sperm lack the MHS-5 epitope, while the ejaculated sperm gave high OD readings, indicating the presence of the MHS-5 antigen.

Since the seminal vesicle and sperm from normal donors were found to contain the MHS-5 antigen, while epididymal sperm were antigen-free, it was felt that the antigen must coat the sperm during ejaculation. To test this hypothesis, sperm obtained at vasovasostomy and orchiectomy were incubated with seminal fluid from vasectomized males or with protein derived from cadaver seminal vesicles. Sperm treated with seminal fluid or seminal vesicle protein gave OD readings on ELISA equal to ejaculated sperm from normal donors, while untreated sperm gave OD readings equal to BSA, the negative control. Treatment of cells from the LICR-LOR HMY2 human plasma cell leukemia cell line in an identical fashion caused the treated cells to develop a positive reading on ELISA. This result demonstrates that the MHS-5 antigen does not have a specificity for sperm, but will adhere to other substances.

Earlier work[14,15] demonstrated that lactoferrin is a sperm-coating antigen of human seminal vesicle origin. To determine if the MHS-5 antibody demonstrated any cross-reactivity with this antigen or with the well-known prostate marker p30, a cross-reactivity study with purified p30 (prostate specific antigen) and human milk lactoferrin was performed. No cross-reactivity of the MHS-5 monoclonal antibody and these previously characterized seminal proteins was observed.

Semen has been subjected to several treatments in an attempt to alter antibody binding in the ELISA. The ability of the MHS-5 monoclonal (1/100,000 ascites) to bind to seminal-fluid-coated plates (10 μg/well) has not been affected by heating at 65° or boiling at 100°C for 2 hrs, treatment at pH 1.8 for 12 hrs, or freezing in liquid nitrogen for 16 hrs. Incubation of semen in 5 mg/ml pepsin for 12 hrs at pH 1.8 eliminated binding of the MHS-5 antibody to its epitope.

Simulated forensic evidence consisting of seminal fluid from normal donors dried onto cloth and cloth samples obtained by the FBI after sexual assault were evaluated for the presence of the MHS-5 antigen by ELISA. All 15 simulated samples tested positive for the MHS-5 antigen. Semen was positively identified in 14 of the forensic samples by ELISA. Of these 14 samples positive for the MHS-5 antigen, spermatozoa had been microscopically confirmed on 13. Fifteen samples tested negative for MHS-5 and spermatozoa were found microscopically in only one of these samples. These results demonstrate a good correlation between the microscopic identification of spermatozoa in forensic evidence and a positive score by MHS-5 ELISA and attest to the stability of the MHS-5 antigen over many months on pieces of evidence handled in a typical manner.

Immunohistochemical staining of seminal vesicle sections using a biotin-avidin-peroxidase technique [16,17] revealed that antibody reacts with the cytoplasm of the epithelial cells of the seminal vesicle. The nucleus does not react with the MHS-5 antibody. The epithelial cells of the seminal vesicle appear to secrete a seminal fluid antigen recognized

by the MHS-5 antibody. Sections of prostate, testis, epididymis, kidney, bladder, pancreas, liver, spleen, colon and breast were also studied and none were found to contain the MHS-5 antigen.

Discussion

The MHS-5 monoclonal antibody is proposed as a probe for semen on the basis of the following findings:

1) MHS-5 recognized an antigen which was present in the semen of all donors tested (421), including vasectomized men.

2) No cross-reactivity was observed with any other human biological fluid or with the semen of common domestic animals.

3) The sensitive, inexpensive ELISA assay was developed, which gives a positive identification of semen with as little as 0.38 ng seminal fluid protein present.

4) The antigen is not masked in vaginal fluid following incubation at body temperature for 4 hrs and remains detectable in mixtures of semen and vaginal fluid.

5) The antigen originates in the epithelial cells of the seminal vesicles, a major contributor of secretions to the ejaculate.

6) The antigenic epitope is thermo-stable and has been detected in forensic casework collected several months previously.

7) The antigen coats the surface of ejaculated sperm.

Pepsin treatment of seminal fluid prior to binding to the plate eliminated subsequent recognition by the MHS-5 monoclonal antibody. Because pepsin initiates hydrolysis of proteins at peptide bonds involving the carboxyl group or aromatic amino acids but does not degrade carbohydrate which might be associated with a protein, the pepsin sensitivity of MHS-5 binding suggests the epitope recognized by the MHS-5 monoclonal is proteinaceous in nature.

The advantages of monoclonal immunoreagents over their polyclonal counterparts are their properties of uniformity, specificity, constant affinity and avidity, and their availability in virtually unlimited supply. These features of monoclonal antibodies make their application in forensic science particularly attractive. Perhaps nowhere is the need for a standard immunoreagent more apparent than in this field, where assays require high sensitivity and reproducibility and are vitally important to the judicial system. Monoclonal antibodies have not heretofore found wide forensic application. Use of monoclonal antibodies may standardize immunoassays performed in forensic laboratories and give an added measure of certainty to testimony by the forensic specialist. The FBI feels that the ELISA assay using the MHS-5 antibody is several orders of magnitude more sensitive than any other assay currently in use. A commercian version of ELISA assay has been developed and is in use by criminal laboratories worldwide.

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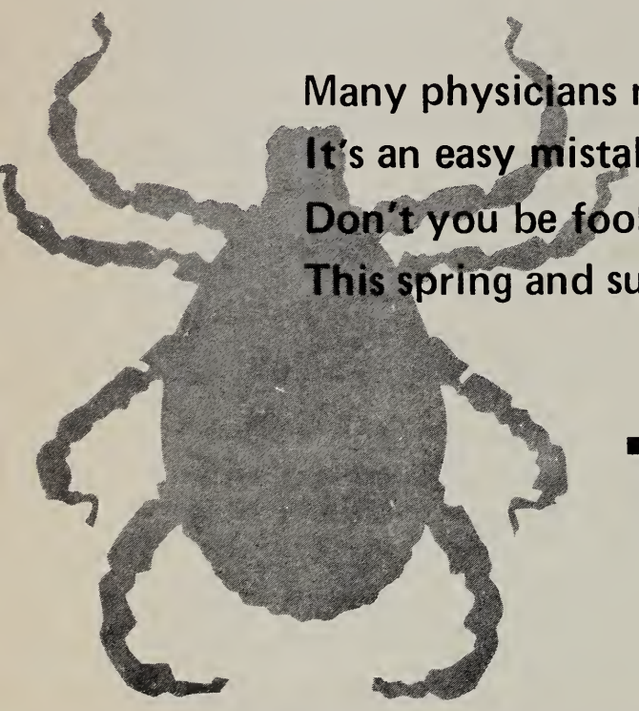
Virginia's Hidden Enemy



Many physicians miss the diagnosis of Rocky Mountain Spotted Fever
It's an easy mistake to make.
Don't you be fooled by flu-like symptoms.
This spring and summer. . .

THINK RMSF

REMEMBER, the first symptoms are:

SEVERE HEADACHE
FEVER
MYALGIA

When the rash appears, it's getting late-

This message a service of the Virginia Chapter, National Foundation for Infectious Diseases, and The Medical Society of Virgini

Tardive Dyskinesia Due to Rocky Mountain Spotted Fever: Case Report

Thomas Scott, MD,
Patrick G. Haggerty, MD,
and Stephen L. Green, MD

Rocky Mountain Spotted Fever (RMSF) is an acute tick-borne rickettsial disease often associated with fever, rash, myalgia, vomiting, and CNS symptoms. The disease is caused by an intracellular infection of capillary endothelial cells and the vascular smooth muscle of arterioles, thus resulting in a diffuse vasculitis. A wide variety of neurologic symptoms have been reported in RMSF in the past 50 years. After a 4-7 day incubation period, the disease presents with the abrupt onset of severe frontal headache and fever. Several days later a centripetal macular rash usually appears, which may become petechial. In the second week of illness severe multi-organ complications can occur, such as renal failure, myocarditis, heart failure, transient pulmonary infiltrates and neurologic deterioration.

We present here the case of a woman who developed buccofacial dyskinesia (resembling tardive dyskinesia) and coma 11 days after the onset of RMSF. The neurologic manifestations of the disease are reviewed.

Case Report

A retired 63-year-old female nurse developed fever and intermittent frontal headache on June 28, 1985, one week prior to her admission. Three days prior to admission she presented to her family physician complaining of a right flank rash, thought to be consistent with herpes zoster. Her temperature at that time was 38.2°C. The fever did not abate and she developed severe frontal headaches, anorexia and lethargy, thus prompting admission to the hospital. The patient denied recent travel outside of Southeastern Virginia, exposure to ticks, grassy fields, wooded areas, or to wild, farm or domestic animals.

The physical exam on admission revealed a thin, ill-appearing white female with a fever of 38.8°C and pulse of 120 but otherwise normal vital signs. The skin was cool and clammy and the bulbar conjunctivae were injected but nonicteric. Funduscopic exam was unremarkable, as was the remainder of the head and neck exam. No adenopathy was present. Except for tachycardia the cardiopulmonary examination was normal. The liver measured 9 cm to percussion in the right midclavicular line and was nontender. The spleen was not palpable and the remainder of the abdominal exam was normal. The patient appeared tired but was oriented to time, place and person. Cranial nerve, cerebellar, motor and sensory function were within normal limits and no abnormal reflexes were noted.

The initial laboratory assessment demonstrated a hemoglobin of 12.5 g/1, hematocrit of 38%, platelet count of 92,000 and normal RBC indices. The white count was 3,300 mm^3 with 59% neutrophiles, 28% bands, 7% lymphocytes, 4% monocytes, and 2% basophiles. Her serum creatinine was 97 μmdl/1, BUN 8.8 μmdl/1 UREA, glucose 6.3 μmdl/1, sodium 131 μmdl/1, potassium 3.3 μmdl/1, chloride 99 μmdl/1, bicarbonate 30 μmdl/1. The total protein, albumin, transaminases, alkaline phosphatase, bilirubin, cholesterol and uric acid levels were all within normal limits. The urinalysis showed 4-5 red blood cells per highpowered field but was otherwise normal. The chest x-ray and electrocardiogram were unremarkable. Spiking fevers continued daily in the hospital. She was started on ampicillin 1 gram IV q6h but her severe headache continued. Facial sinus x-rays, an intravenous pyelogram and a CT scan of the abdomen were obtained; all were normal except for the demonstration of a slightly enlarged spleen with calcified granulomas.

On the third hospital day the patient developed a petechial rash most prominent on the extremities, especially the palms and soles. An infectious disease consultation was obtained and the patient was noted to be quite lethargic and had developed peripheral edema in addition to the rash. Temperatures were recorded as high as 40.5°C. Due to the constellation of signs and the season of the year, RMSF was considered and she was started on intravenous chloramphenicol 750 mg q6h in addition to intravenous steroids. She defervesced within 24 hours but on the fourth hospital day purposeless lip-smacking was noted. The initial latex agglutina-

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Table 1. Some Less Common Neurological Findings in Rocky Mountain Spotted Fever.

Miller et al[1]: dysarthria (1 patient), foot drop (1), vertigo (1), gaze palsy (1), cerebellar ataxia (1).
Mulholand[3] (1 patient): hemiplegia, behavioral changes.
Harrell[4] (study group of 15 patients): athetosis, spasticity, fasciculations, tremor, hyperesthesia, altered pupillary signs, nystagmus, behavioral changes.
Madison et al[5] (1 patient): vertigo, paraplegia, deafness, behavioral changes, fine and gross motor difficulties.
Harrell et al[6] (1 patient): choreoathetoid movements of extremities.
Stroy et al[9] (1 patient): hemiparesis, late-onset seizures.
Kaplowitz et al[13]: ataxia (7 patients), focal neurologic findings (3).
Rubio[14] (1 patient): hemiparesis.

tion titer for RMSF and febrile agglutinins were all negative. On the same day her platelet count fell to 18,000 and an alternative diagnosis of thrombotic thrombocytopenic purpura was considered, although schistocytes were not seen on the peripheral blood smear. Her fibrinogen level was 215 (normal 200-400). Fibrin split products were greater than 10 but less than 40, prothrombin time 14.3 seconds (normal 10-13 seconds) and partial thromboplastin time 48 seconds (normal 25-37 seconds).

Oral facial dyskinesia persisted for two more days with increased intensity and spread to involve the neck in a fashion reminiscent of tardive dyskinesia. She became comatose on the sixth hospital day and a CT head scan was negative. Spinal fluid analysis was unremarkable except for an opening pressure of 300 mmH_2O and xanthrochromia. The electroencephalogram showed generalized (nonfecal) grade II dysrhythmia characteristic of a toxic or metabolic encephalopathy. She became more responsive over the next several days and by the seventh hospital day the dyskinesia had entirely resolved. After 10 days of chloramphenicol the patient was treated with doxycycline. Two weeks after admission, the latex agglutination titer for RMSF rose to 1:320, thus confirming the diagnosis.

Although she required a prolonged convalescence in the hospital due to severe generalized weakness, she was ambulatory and discharged by day 20. The patient was contacted one year later and it was learned that she had experienced no residual neurologic sequelae and had no further episodes of facial dyskinesia.

Discussion

The most common neurologic features of RMSF are diffuse CNS disturbances such as confusion, coma, generalized seizures, behavioral changes, headache, and corticospinal tract findings.[1,2] Less commonly there have been reports of hemiparesis, hemiplegia,[3] focal seizures, bulbar and cranial nerve involvement,[1,4] vertigo,[1,5] ataxia, tremor, peripheral neuropathy,[4] choreoathetosis,[4,6] and visual changes.[4] Long-term sequelae, once thought to be rare, are most commonly behavioral changes, though paraplegia, chronic seizures, muscle atrophy, disturbance of gait and fine motor activity, and peripheral neuropathy have been reported.[4,5,7-10] When the more unusual manifestations of RMSF are reviewed, focal involvement of any area of the CNS may be found.

Since the rickettsia of RMSF infect only vascular endothelium, the CNS lesions of this disease are manifest as micro- and macro-infarcts and minute areas of gliosis resulting from the vasculitis. Movement disorders have been attributed to derangement of the extrapyramidal system. Therefore it is proposed that a localized vasculitis in this system was responsible for this patient's dyskinesia. The lesion most likely existed in the dopamine system, since this dyskinesia so resembled tardive dyskinesia. The choreiform movements of tardive dyskinesia are believed to result from abnormal neuronal activity caused by changes in the number and sensitivity of dopamine receptors. In this case a similar abnormality presumably resulted from a vasculitis-induced hypoxia of the same neurons or associated neurons (dopaminergic).[4] Of the major dopamine pathways, (nigrostriate, mesocortex, hypothalamus, basal ganglia, median emminence, amygdala, interpeduncular nucleus), the basal ganglia and nigrostriate have been proven to be involved in many movement disorders.[11] Especially similar to the dyskinesia described are those seen in Huntington's disease and Hallervorden-Spatz disease, both of which have been shown to involve lesions of the caudate and putamen. A neuromuscular paralysis caused by a tick toxin has also been reported. This toxin has been isolated from the salivary gland of the same genera of ticks (i.e., *Dermacentor* and *Amblyomma*) that carry *R rickettsii*.[12] The manifestations of this include cerebellar ataxia and ascending flaccid weakness, which were not seen in this case.

A search of the English literature revealed only two previous reports of choreoathetoid movements in RMSF (Table 1). In one of the cases the movements were "of the extremities,"[6] and in the

others[7] the movements were described only as "choreiform". This report calls attention to an unusual complication that may occur in RMSF. In this case, as in most, major neurologic derangements resolved on work it in antimicrobial therapy.

The authors thank Sue Ellen Faircloth for typing the manuscript.

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Snakebite Treatment: Fact and Fiction

Frederick L. Glauser, MD, *Richmond, Virginia*

EACH YEAR 8,000 people in the United States are bitten by venomous snakes, primarily pit vipers.[1-2] Ninety-eight percent of bites occur on the extremities, usually in the fingers, palms, ankles and calves. The injected venom, a complex mixture of peptides, proteins and enzymes, causes local and systemic toxin reactions. Clinical severity varies from fang marks with no symptoms (Grade 0) through the rapid onset of pain, edema, tissue swelling (Grades 1 and 2) to the later development of ecchymosis and vesicles along with such systemic symptoms as nausea, vomiting and perioral tingling (Grade 3) or shock, renal failure and coma (Grade 4). Forty-five percent of victims suffer Grade 2 envenomation while 25%, 15% and 5% are classified as Grade 1, 3 and 4 respectively.

Treatment goals are 1) decrease morbidity (tissue necrosis and loss, contractures, infection, nerve damage) by neutralizing the locally deposited and circulating venom as soon as possible; 2) decrease mortality (at present only 8-12 victims die from snakebites each year); 3) do as little harm as possible. Many reports concerning treatment are anecdotal, retrospective and uncontrolled.[3-5]

Treatment consists of two phases: first aid at the scene and hospital-based treatment. Accepted but not necessarily fully proved first aid techniques include keeping the victim calm, placing a constricting band (not a tourniquet) between the bite site and the central circulation, and immobilizing the limb. Incision of fang marks and suctioning, if performed within 30 minutes of the strike, may remove up to 50% of the venom. Mouth suctioning, although often not advised, has not been associated with an increased incidence of wound infection. Cryotherapy, icing the limb for hours or days, is absolutely contraindicated and associated with an increased need for amputation. Whiskey treatment and surgical procedures in the field are worthless and dangerous.[1,2]

The mainstay of hospital-based treatment is intravenous polyvalent antivenin, which is effective in all American species except coral snakes.[1,2,6] Since antivenin is produced by injecting horses with four different snake venoms, routine conjunctival or intradermal testing for sensitivity to the horse serum in the antivenin is suggested.[1,2,6,7] Patients with a history of hay fever, atopy, or previous reaction to horse serum may be at risk for developing anaphylaxis early and serum sickness later. However, a recent study found that 50% of victims with negative skin or conjunctival tests had early reactions to the intravenous administration of antivenin.[8] There were no early reactions in the two patients with a positive skin test. Seventy-six percent of victims receiving an Australian polyvalent antivenin experienced acute reactions.[9] All victims should be considered potential candidates for adverse reactions. The 20-30 minutes necessary for sensitivity testing may be better used to administer the antivenin; however, skin testing is, at present, still standard practice.

Clinical judgment dictates whether antivenin therapy should be given. The dose and timing depends on the severity of the envenomation. Antivenin is probably effective even if delayed for 24 hours. No antivenin is necessary in Grade 0 and most Grade 1 envenomations, while up to 30 vials may be necessary in Grade 3 and 4 envenomations. Patients with Grade 2 to 4 envenomation should receive antivenin. Diphenhydramine, 50-100 mg IV, should be administered prophylactically or be readily available. The antivenin should be diluted in larger amounts of intravenous fluid (500 to 1000 ml) and given over a longer time period (2-3 hours) to prevent or modify reactions. Some authors recommend that epinephrine be infused simultaneously.[6,7]

Observation, the administration of intravenous fluids and tetanus antitoxin, the use of broad spec-

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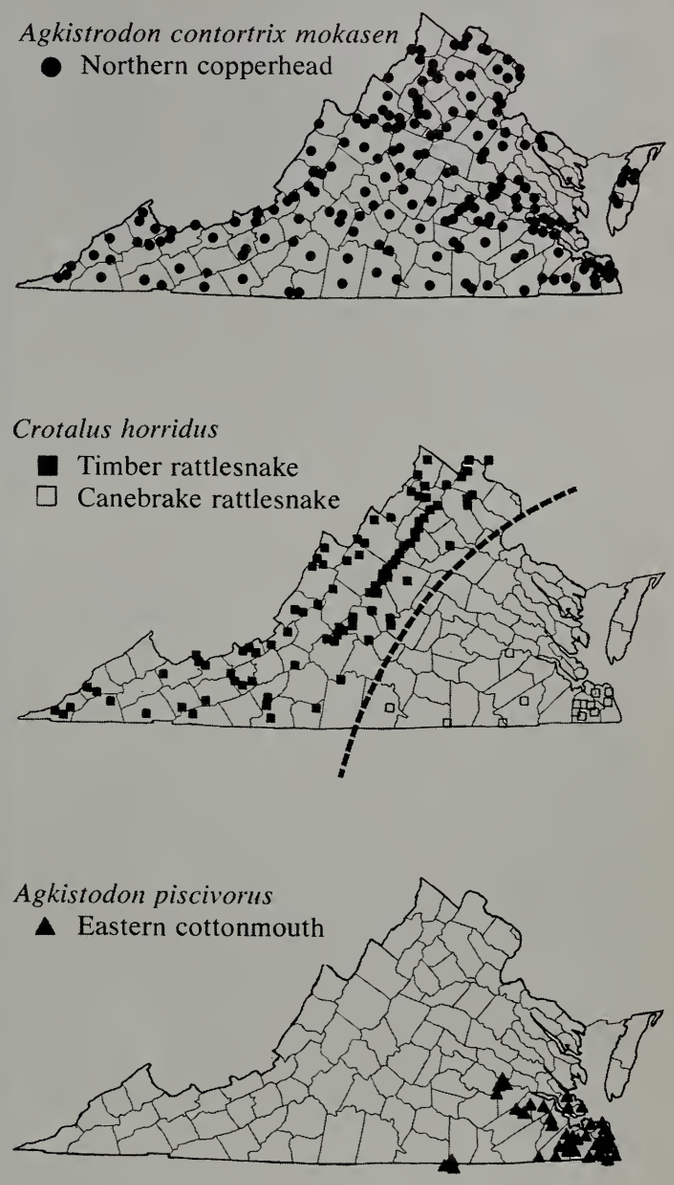
trum antibiotics in infected or potentially infected bites, and pain control are all well accepted hospital treatment modalities.[1,2]

Controversial but potentially effective alternate forms of therapy exist. The value of excisional surgery, i.e., removal of the tissue containing snake venom, is unclear. Uncontrolled human and animal studies indicate that removal of residual venom halts progression of local signs and symptoms. Whether systemic signs and symptoms improve is unclear, and the postoperative complication rate may approach 20%[5,3]. This procedure should not be considered a first-line treatment unless the patient absolutely cannot or will not take antivenin. Fasciotomy to relieve vascular compression in swollen limbs ("compartment syndromes") is rarely, if ever necessary.[1,2,4] Normal Doppler-detected blood flow in the afected limb,[10] normal intracompartmental pressures,[4] and a review of over 550 cases, none requiring fasciotomy,[1] confirms this view.

Finally, the administration of heparin or systemic, high-dose, short-term steroids has no place in the modern hospital management of snake bites.

POISONOUS SNAKES IN VIRGINIA



Data courtesy of C. R. Blem, PhD,
Curator of Herpetology and Ornithology,
Virginia Commonwealth University

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VIRGINIA MEDICAL
EDITORIAL

Doublespeak

Cost-effectiveness has become the new buzzword in the Alice in Wonderland world of American health care. Less is more and cheap is better. Chest X-rays and electrocardiograms must have an indication before being paid for by insurance carriers. Laboratory work must be justified by symptoms before being reimbursed.

How sensible all this sounds! How can one possibly justify 1,000 routine preoperative chest x-rays when maybe only one or two life-threatening conditions may be discovered? Why should we do preoperative electrocardiograms when only a very few will reveal significant pathology in an asymptomatic patient? Think of all the money that can be saved, some of which could go into a patients' compensation fund for thos permanently damaged by the lack of preoperative studies—or to their survivors.

Using the same rationale, we should discontinue all routine security checks at airports. Certainly the number of potential hijackers who are discovered by metal detectors is so small as to make the whole process wasteful and not in the least cost-effective. Why have backup computers and twin instrumentation aboard our commercial airplanes? Certainly one set of instruments should do the job most of the time, the occasional crash would be quite acceptable, considering the financial savings.

As American medicine is being told by the third parties that having assistant surgeons in attendance at many operations is wasteful and unnecessary, it becomes obvious that copilots and flight engineers are often superfluous and should be dispensed with.

Who is kidding whom in all that pious charade of "better medicine" by doing less for our patients? Why won't the third parties come clean and admit that they are rationing health care, pure and simple, and let the public know the truth?

W. Leonard Weyl, MD

Yesterday's Treasures, Today's Anachronisms

Since cost effectiveness is now hallowed, even worshipped, questioning our efficiency is appropriate. Efficiency—usually meaning cheaper—is the goal of our society for all things, and we must measure ourselves against some standard. Whether more efficient and/or cheaper is always better is a separate question entirely.

A modern physician or surgeon requires a vast support system: hospital, nurses, pharmacists, physical therapists, suppliers, orderlies, housekeepers, business office personnel, etc. Can a surgeon operate without the anesthiologist/anesthetist? Can a cardiologist evaluate without an electrocardiographer?

Gone are the days when the physician of sainted memory made house calls, sat by the bed, held the patient's hands to comfort the patient and family (while mentally wringing his own at his helplessness), and observed nature taking its course.

The adventure books of my boyhood had some

brave soul risking his life in the blizzard/flood/etc. to get the doctor or to bring back "the serum." Once the doctor and the serum arrived, no one had to worry any longer—except the doctor who probably knew that the serum was not what it was cracked up to be. Or, worse yet, he was the typically poorly trained physician of his day who did not know what he did not know.

So why is it that we have hospitals and consultants and tests and everything else but still miss diagnoses and still have incurable illnesses? This society can put men on the moon and surely could have effective, efficient medical care if it put its mind to it, forgetting for the moment the explosion of the Challenger. Obviously the present medical establishment—you and I, but not them—are to blame. Therefore, they shall tear up the old system, *quickly*, and by trial and error slowly erect a new medical care system. Evolution is probably how most of us got here, and precipitous action in medical affairs is rarely appropriate. But evolution is not efficient: see how many years it took for us to reach our present plane.

While crying for efficiency, i.e., treating more patients for less money, the same voices cry for more wholistic medicine. They want to divide medical care into myriad units of care and DRGs for saving money but want the patient to be treated as a whole.

Japan has "living national treasures," highly skilled artisans whose crafts are in danger of extinction. We physicians must continue to be living national anachronisms by always putting the welfare of the patient ahead of efficiency and economy.

HENRY S. CAMPELL, MD

Screening for Ethics

WHAT has happened to standards of medical ethics? I am disturbed by the greatly increased number of disciplinary actions reported in the State Board of Medicine's newsletter, *Board Briefs*. In the edition of Summer 1984, 11 actions were listed. In the Fall of 1986, 43 actions were reported. It sets me to thinking: Could these difficulties have been prevented? And where have we as fellow practicing physicians neglected to serve and aid our brothers?

I think the three medical schools' admissions departments should apply more rigorous screening to the aptitudes, family background, and history of each candidate wishing to enter the field of medicine. The same procedure should be applied to each physician who has trained in medicine abroad and seeks a license to practice in Virginia. Where there is a question concerning a candidate, a consultation should be sought with a committee appointed by The Medical Society of Virginia. One of the committee's members should be a psychiatrist.

Dr. C. Barrie Cook struck an encouraging note about ethics in his recent editorial in VIRGINIA MEDICAL.[1] I, too, look to the future with confidence and think our local and state medical societies can help this situation. Only by doing what is ethically right can benefit come to the physician, the patient and society. Giving service above self is still the medical profession's goal.

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Trends in Discipline

THE Federation of State Medical Boards has released figures revealing that state boards disciplined almost 40% more physicians in 1985 than in 1984. Physicians were disciplined primarily because of excessive use of alcohol or drugs, impairment, or inappropriate prescribing habits.

There has been a similar trend in Virginia. In 1976, all disciplinary actions numbered 15. By 1980 the number had increased to 29, and in 1986 there were 64 actions.

On the positive side, the major reason for the increase in the number of recognized impaired physicians is better monitoring. While the increase in numbers involved is frightening, it means that we are doing a better job of policing our profession.

E.L.K.,JR.

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ESTABLISHED 1923 BY STUART McGUIRE, M.D.

OBITUARY

Memoir of W. H. Kretz 1915-1986

By Fred C. Davis, Jr., MD, Marvin T. Stiles, MD, Eugene T. Temple, MD, and Harold L. Williams, MD

Dr. Wieman Hawley Kretz died at Riverside Hospital in Newport News, Virginia, on July 28, 1986. He had been a member of the hospital staff since 1949 and was the first orthopedic surgeon to practice on the lower Virginia Peninsula.

Bill Kretz was born in Brooklyn, New York, in 1915, graduated from Cornell University and received his MD degree from Long Island College of Medicine in 1940. He spent a two-year rotating internship at Methodist Hospital in Brooklyn, New York, and his residency training at the New York Orthopedic Dispensary and Hospital. During World War II he was in the United States Army, serving in North Africa as chief of orthopedics and rehabilitation for the Second Convalescent Hospital.

He was certified by the American Board of Orthopedic Surgeons. He was a member of the American Medical Association, The Medical Society of Virginia and the Newport News Medical Society. He belonged to the American Academy of Orthopedic Surgeons and was a past president of the Virginia Orthopedic Society and the Riverside Hospital general staff. During his long years of service on the Peninsula he was active in the Kiwanis Crippled Children Clinic and the Peninsula Cerebral Palsy Clinic and was appointed to the Virginia Board of Vocational Rehabilitation. He also acted as a consultant to Langley Air Force Base Hospital and the Veterans' Administration Medical Center in Hampton. Following his partial retirement in 1979, he worked part-time at MacDonald Army Hospital, Fort Eustis, Virginia.

Bill Kretz was a member of the First United Methodist Church in Newport News. He played the piano and for many years was a successful cultivator of bonsai. Bill was a good golfer in the best sense of that term, bringing to his game the same mixture of integrity, enthusiasm and humor that he displayed in this profession and in all other apsects of his life. He is survived by his wife, Priscilla, two daughters, Jeanne Kretz Ferguson and Joan Margaret Kretz, a son, Robert Olds Kretz, and two grandchildren.

Bill Kretz will be long remembered by the patients he served so capably for many years and by colleagues who had the pleasure of his company.

Memoir of T. C. Lawford 1899-1986

By T. N. Hunnicutt, Jr., MD, and R. T. Peirce, Jr., MD

Dr. Thomas Cyprian Lawford of Newport News died June 23, 1986, at the age of 85. He had practiced medicine in Hilton Village, Warwick County (now part of Newport News), for 41 years.

Dr. Lawford was born in Cedar Croft, Buchanan County, September 26, 1899. His premedical studies were at William and Mary, and he graduated from the University of Virginia School of Medicine in 1929. He interned at Martha Jefferson Hospital 1929-1930 and was a resident at Orange Memorial Hospital 1930-1931. He came to Newport News as a house physician at the old Elizabeth Buxton Hospital (now a rehabilitation center) in 1931. On the advice of Dr. Joseph T. Buxton, he started his practice in Hilton Village in 1932, where he remained until he retired, November 1, 1973.

He was a member of the Newport News Medical Society, The Medical Society of Virginia, the American Medical Association, and the Trudeau Society. Dr. Lawford was a veteran of World War I, a Mason, a member of the vestry of St. Andrew's Episcopal Church; he belonged to the English Horticulture Society and was a founder of the local Rose Society. In fact, growing things was his avocation, these included vegetables, flowers, shrubs, and trees, which he loved to share with his friends.

Tom always seemed to have time to talk with his friends, a lost art in these fast, hurried times. His patients loved this unhurried pace, and his sympathetic care.

• **Melvin Gillette Baynard, MD,** Lawrenceville; Medical College of Virginia, 1941; age 70; died May 14, 1987. He was a retired family practitioner and surgeon.

• **Joseph Dixon Cauthen, MD,** Norfolk ophthalmologist; Howard University College of Medicine, 1957; age 58; died October 12, 1986.

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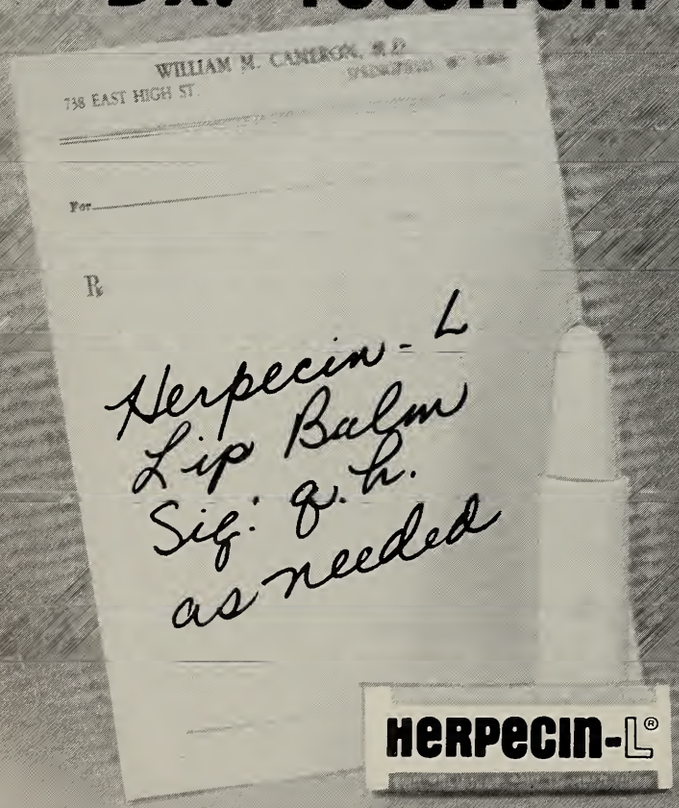

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VIRGINIA MEDICAL

August 1987, Volume 114, Number 8

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UP FRONT

About the cover **Taking the oath of office as the 142nd President of the American Medical Association is Dr. William S. Hotchkiss of Virginia. Administering the oath is Dr. Alan R. Nelson, Chairman of the AMA Board of Trustees.** *Photograph by Joe Fletcher for the AMA*

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LETTERS

His experience illuminates Australian medical admissions

I read with interest the editorial in the May issue on medical school admissions,[1] especially the reference to medical education in Australia. I am a graduate of Sydney University in Sydney, Australia, (whose medical school is over 100 years old), performed my surgical residencies in the United States from 1974 to 1980, and have now practiced in Virginia as a plastic surgeon since 1980.

There are differences between American and Australian medical school admissions, as the editorial pointed out; however, the problems in the Australian system are not obvious, and there are even advantages to it. One of the advantages is a traditional system, in which only academic achievement is the standard for admission, so that there is no chance for "good old boy" or alumni manipulation to allow an inferior student into the medical school. There is certainly no data to show that there is a great problem among Australian MDs because they did not have preadmission interviews. I feel that problems cannot be alleviated by preadmission interviews; in fact, misinterpretation of a candidate could lead to denying a capable student the opportunity to study medicine.

The Australian government does not completely subsidize medical education, as stated, but does fund scholarships for students of high academic achievement; and since competition is extremely intense, at least as intense as in this country, virtually all of those admitted to medical school are in the high-achiever/scholarship category. The student must pay for his/her board/lodging/upkeep while in school, however, and most students work during the summer vacations to augment their incomes.

The Australian system produces a high-quality student, one that always scores extremely well in competitive international examinations and has high ideals regarding patient care—as high as any system in the world, in my view.

In all, having been associated with students from all of Virginia's medical schools during my seven years of practice here, I would say that the average

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MSVRO: Questions and Answers

Concerned about change in hospital utilization review

This letter is in protest to a change in the operation of the Medical Society of Virginia Review Organization.

A decision was made recently to eliminate the hospital utilization review groups from distribution of notifications relative to quality of care review. I am not sure if this change was mandated by law or if it was at the discretion of the MSVRO. In any case, my feeling is that it is a direct and deliberate mechanism to reduce the response of physicians and therefore increase the number of denials, which, in the case of failure to respond, become automatic.

My request is to insist that the distribution list include hospital utilization review groups.

Timothy L. Kelly, Jr., MD
1715 George Mason Drive
Arlington VA 22205

Dr. Robert A. Morton, president, MSVRO board of directors, replies: The MSVRO is required by federal regulation to notify these three parties of each denial: the attending physician, the Medicare beneficiary whose care is being denied, and the hospital where the care was delivered. In the last category, the PRO contact person at each hospital is designated to receive the denial notice, and we have requested that this person share the denial information with the necessary medical staff utilization or quality assurance committee. Understandably, it is expedient for the MSVRO to have a uniform system of dealing with only one administrative person per hospital and to rely on that individual to disseminate the information within the hospital.

Previously, some of the MSVRO regional offices were notifying the hospital's utilization review committee on a courtesy basis, but due to budgetary constraints these notices have been discontinued. I believe this is the change Dr. Kelly refers to.

I suggest that Dr. Kelly seek out the designated PRO contact in his hospital and request that the denial notices be copied to the appropriate committee of the medical staff.

Please be assured that the MSVRO is not trying to bypass the hospital medical staff or interfere with the right of physicians to request reconsiderations of denial notices.

Loses two patients after admission for pleural effusion/neoplasm denied

A 70-year-old man came to my office after several years of absence. He was very short of breath and had barely been able to drag himself to my office. An x-ray of the chest revealed a large right pleural effusion and an obvious neoplastic mass at the right hilar area. He was in considerable pain. There was marked weight loss due to his malignancy and debility. I hospitalized him for the following reasons:

1. To establish effective pain control.
2. Do a chest tap and cytologically to confirm the diagnosis by cytologic exam of the pleural fluid.
3. Assess the degree of pulmonary insufficiency.
4. Have a review by an oncologist and radiotherapist for opinions re possible therapy using basic facts that I would develop as promptly as possible.
5. Have the dietitian review his situation and give what support she could and offer him good food at his bedside.
6. Enlist the efforts of his legal guardian to get his discharge papers and arrange transfer to the Veterans Hospital if that was the best course of action.
7. If necessary, remove the pleural fluid and instill tetracycline in the hope this would benefit him.

The hospitalization was denied by the Medical Society of Virginia Review Organization because the chest tap could have been done as an outpatient. The legal guardian blamed me for the denial, and she and her husband (both long-time patients of mine) asked that I send their records to another physician.

When I do what I think is necessary for the good care and successful outcome of my patients and a reviewing authority considers a hospitalization un-

necessary because I didn't follow a "cookbook" formula, then I feel that I may have taken, in the words of Robert Frost, "the road less travelled," but I am not at all convinced that I have taken the wrong turn.

I see no alternative to the presence of review organizations and fully realize that they have guidelines to follow and that such review organizations are themselves subject to review. I strongly feel, however, that some of the difficulties suffered by humanity are not measurable and should be approached warily by a review organization, if at all.

F. R. Whitehouse, MD

Suite 10, Medical Center
Tate Springs Road
Lynchburg VA 24501

Dr. E. F. Poutasse, MSVRO medical director, replies: The presence of the large right pleural effusion and an obvious neoplastic mass at the right hilar area is good evidence of the need for hospitalization; however, today we have to consider what could be done on an outpatient basis prior to admission. Could a chest tap have been done safely on an outpatient basis, and would this tap have relieved enough symptoms to postpone admission? If the physician is convinced that this is inadvisable, he should document his reasons for that opinion in the chart so that the PRO can see the evidence of medical necessity. Several of the reasons listed by Dr. Whitehouse are possible reasons for hospitalization if specific circumstances and/or conditions which mandate hosptalization are documented.

I do not know why the legal guardian blamed the doctor for the denial. Although the PRO denial letter explains that the patient is not responsible for the bill, other than the deductible and certain noncovered services, there is still a good deal of misunderstanding about these denial letters. Reconsideration of a denial decision is available to the doctor, the hospital, and the beneficiary. These reconsiderations are performed by another physician, and the MSVRO makes every possible attempt to see that a physician of the same specialty performs the reconsideration. Our records show that better than 40% of initial denials are overturned in the reconsideration process.

The MSVRO does not have a rigid attitude but will reverse its position, largely on the strength of additional information requested of the attending physician.

quality of the student here in Virginia is nearly identical to that of the system in Australia.

Darryl J. Hodgkinson, MD

1323 Jamestown Road
Williamsburg VA 23185

1. ELKjr: Medical school admissions. Va Med 1987;114:302-303

Settlement of malpractice case an unsettling experience

I am not an expert on medical malpractice. However, my single experience in nearly 33 years of practice leads me to advise physicians who have insurance with the Virginia Insurance Reciprocal to consider paying tail coverage and obtain insurance elsewhere. Maybe my one case is not a basis for judgment, but it apparently is the unstated policy of the VIR to settle all cases if possible rather than defend physicians in malpractice actions.

Paul Schellenberg, MD

Box 396
The Plains VA 22171

Judy Kelley, the Reciprocal's second vice president, replies: The Virginia Insurance Reciprocal has no policy, stated or unstated, to settle all cases if possible rather than defend physicians in malpractice actions. The decision to settle or defend is made only after 1) an indepth investigation by professional claim consultants and 2) independent review of the facts by a practicing physician or physicians. In 1986, 18 cases were defended by medical malpractice panel review or by jury trial, resulting in 13 verdicts/dismissals in favor of the health care providers and five verdicts in favor of the plaintiffs.

From behind the Iron Curtain, an ethical request

I thought you might be interested in a request I have received for a reprint of my article in the March 1986 issue of VIRGINIA MEDICAL.[1] It came from Karl-Marx Universität in Leipzig, East Germany, behind the Iron Curtain. I sent a copy of the entire issue.

Robert Edgar Mitchell, Jr., MD

Suite 211, 7605 Forest Avenue
Richmond VA 23229

1. Mitchell REjr. Three cartoons that shook medical ethics. Va Med 1986;113:144-147

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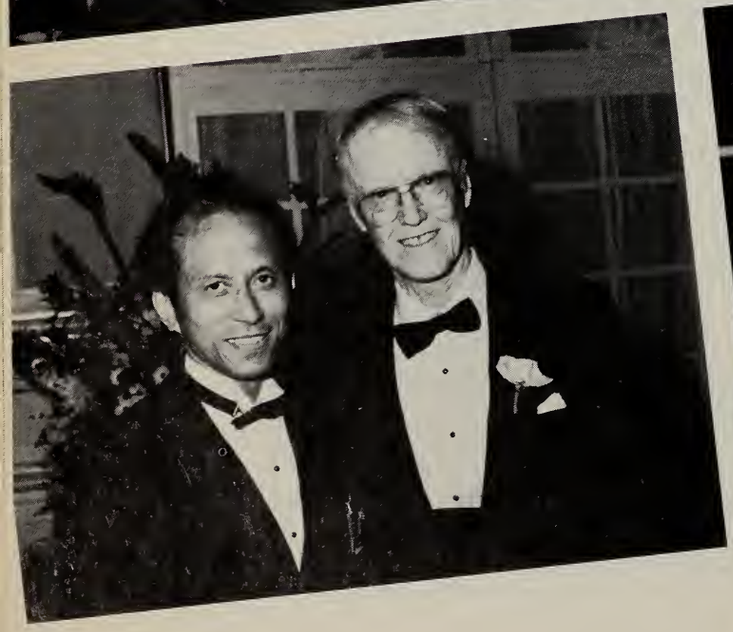
Dr. Hotchkiss delivering his inaugural address, which is to be published in JAMA. In the third row behind him, his hand to his face, is MSV President Richard L. Fields.

Below left, at the President's Reception, Dr. Hotchkiss with his practice associate, Dr. Juan M. Montero, and in the picture immediately below, with his wife Virginia, who is at extreme left, and Dr. and Mrs. W. Leonard Weyl.



MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

MSV ACTUARY'S REPORT STALLS RATE INCREASE

The Great Rate Hike that St. Paul planned to pull off beginning July 1 has been stalled, and Virginia physicians whose liability insurance comes up for renewal in July and August are being billed at the old rates. What went right? The actuarial report commissioned by The Medical Society of Virginia pointed out that the requested increase of 47.1% was based not on Virginia experience alone, as previously, but on "a revised method which gives more weight to factors outside Virginia," and that method is unwarranted, the Society's actuary concluded. The report was fired off to the State Commissioner of Insurance, who is considering the rate hike request. The Commissioner's actuary asked St. Paul for more information. St. Paul decided to go with the old rates for July and August, when most Virginia policy holders receive their renewal notices. Tune in for the next episode.

AMA SALUTES NEW CHIEF BILL HOTCHKISS

A quiet-spoken Virginian with a passion for the preservation of physicians' rights, Dr. William S. Hotchkiss, has become the 142nd President of the American Medical Association and the second AMA chief from Virginia in a decade; the late Dr. Richard E. Palmer of Alexandria was President in 1977.

The inaugural ceremony was held in the late afternoon of June 24 before the AMA's House of Delegates in the grand ballroom of the Chicago Hilton Hotel. On the stage before a backdrop of flags sat the presidents of the state medical societies. On the front row in the audience sat members of Dr. Hotchkiss' family: his wife Virginia; their daughter Mary and her husband, Dr. Byrd S. Leavell, Charlottesville; their son, Dr. Richard S. Hotchkiss of St. Louis, and his wife Clair. From Chesapeake to sit with the family came Dr. Hotchkiss' secretary, Karen Shepard, and his associate in thoracic surgery, Dr. Juan M. Montero II, and wife Mary. Behind them sat 23 physicians of the Virginia delegation (turn the page to see their picture) and their wives. In his

Virginia's delegation to the AMA meeting at which President Hotchkiss took office gathered for this photograph before the inaugural ceremonies began.
From left to right:
Dr. Michael A. Puzak, whom the new President appointed to the AMA's Council on Ethical and Judicial Affairs;
Dr. George E. Broman;
Dr. Percy Wootton;
Dr. W. Leonard Weyl, who succeeded Dr. Puzak as chairman of the delegation;
Dr. William J. Hagood, Jr.;
Dr. William H. Barney;
Dr. Paul Kaufman;
Dr. C. Barrie Cook, who was appointed to fill Dr. Puzak

xpired term as AMA delegate;
Nelson G. Richards;
Charles M. Caravati, Jr.;
Harold L. Williams;
Donald S. Thorn;
H. C. Alexander III;
William S. Burton;
James A. Shield, Jr.;
John A. Martin;
Harry C. Kuykendall;
Dr. Russell D. Evett;
Dr. Joseph W. Early, Jr.;
Dr. Raymond S. Brown;
Dr. Leon I. Block;
and Dr. Glenn C. Updike, Jr.

All photographs in this section by Joe Fletcher for the AMA

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inaugural address, Dr. Hotchkiss exhorted American medicine to continue its leadership role, especially in the fight against AIDS and in the preservation of excellence in clinical care. "Patient advocacy" should be every physician's watchword, he emphasized.

The inauguration complete, everyone proceeded to the presidential reception, which drew a throng of some 1,000 people, most of whom percolated down the receiving line to greet Dr. and Mrs. Hotchkiss before visiting the crowd-sized buffet tables. As the excitement finally wound down, the Virginia delegates adjourned to their rooms to change into comfortable clothes and went out to recuperate at the Parthenon, a paper-napkin restaurant where the informal ambiance and Greek food were dynamically restorative.

PUZAK, COOK, WEYL NAMED

One of Dr. Hotchkiss' first official actions was to nominate Dr. Michael A. Puzak of Arlington to be a member of the Council of Ethical and Judicial Affairs, the AMA's Supreme Court; the House of Delegates confirmed the appointment. Dr. Puzak has been a member of the Virginia delegation to the AMA since 1972 and its chairman for a decade; in order to serve on the Council, he had to resign his delegate status, and MSV President Richard L. Fields appointed a presidential predecessor, Dr. C. Barrie Cook of Fairfax, to fill the term. The delegation them elected as its new chairman Dr. W. Leonard Weyl of Arlington.

HOUSE ACTS ON AIDS

Seated in the House at this meeting were 406 delegates, 327 of them representing state medical associations, 69 from national medical specialty societies, and ten of them section and service delegates. The prevention and control of AIDS dominated their discussion in the context of a widely publicized report from the AMA Board of Trustees. The Surgeon General himself, Dr. C. Everett Koop, came to Chicago to testify in support of the report. The report as revised and adopted by the House calls for:

1) Mandatory testing for the AIDS virus of donors of blood and blood fractions, organs, tissues, semen and ova, inmates of federal and state prisons, immigrants to the United States, and military personnel.

2) Routine voluntary testing with informed consent for patients who are from areas with a high incidence of AIDS or engage in high risk behavior and are 1) patients at sexually transmitted disease and drug abuse clinics, 2) pregnant women in the first trimester, 3) seeking family planning services, or 4) to undergo surgical or other invasive procedures.

NO DUES INCREASE

In the financial area, no dues increase was voted by the House for 1988. The auditor's report showed an increase of 11.4% ($140 million) in operating revenues

for 1986 over 1985, which covered an increase in operating expenses of 9.4% ($133 million).

OPEN DOOR TO DRUG SALES The dispensing of drugs by physicians, an issue arising out of the new repackaging industry, received much attention by the House and the adoption of this policy statement: "RESOLVED, that the American Medical Association support the physician's right to dispense drugs and devices when it is in the best interest of the patient and consistent with the AMA's ethical guidelines." The Medical Society of Virginia is on record as opposing drug sales by physicians except in special situations, such as a rural area not served by a pharmacy.

MORE BANS ON SMOKING The AMA's continuing opposition to the use of tobacco products was augmented by eight recommendations, including a ban on smoking on commercial aircraft and the passage of laws setting the minimum age for the purchase of tobacco products at 21.

REPEAL TH PRO LAW? The handling of sanction cases, recently revised under AMA pressure to assure greater due-process protection for physicians, continued to draw fire from the delegates, who asked the AMA to seek still more protective changes and study possible repeal of the PRO law.

NO TO DRGs, RAPs, OBRA The House registered vigorous opposition to physician DRGs and to the proposal to include compensation of radiologists, anesthesiologists and pathologists (RAPs) under hospital DGRs. Another thorny subject was the Omnibus Budget Reconciliation Act of 1986, scheduled to go into effect on October 1. This legislation calls for complicated documentation by nonparticipating physicians. Seek to rescind the law, said the House.

VIRGINIA DOCTORS SUE PHICO; NEW AIDS CENTER OPENING

Dr. Edward E. Gahres of Alexandria is chairman of the group of Virginia physicians who are suing PHICO for $3 million for "misrepresentations and other illegal conduct" growing out of the insurance company's decision in 1986 not to renew liability policies. As this was written the group numbered 140 doctors from over the state and was still growing, according to lawyer John D. Grad.

A new AIDS testing/counseling center was to open in Virginia Beach late last month, joining the three centers already operating in Richmond, Fairfax and Roanoke under the auspices of the State Department of Health. Clients at the centers are identified only by numbered code, so that testing/counseling are anonymous. The department's STD clinics over the state offer HIV testing on a confidential basis but require a name and address, as do most physicians who administer the test.

VIRGINIA MEDICAL
AUGUST 1987

Drug-Impaired Physicians: Identification, Intervention, Treatment

William P. Arnold, MD, Margaret A. Smith, CRNA,
Robert F. Bedford, MD, and Lowell Garner, MD,
Charlottesville, Virginia

As with any disease, drug addiction yields to diagnosis and treatment only with the application of proven techniques. Certain behavioral changes, some related to the doctor's specialty, tentatively identify drug abuse. To probe for verification, great caution must be exercised. Intervention requires special training or the insight of a recovering peer. Treatment involves at least one month of intense inpatient therapy and three months in a halfway house. Returned to practice, the physician faces the critical after-care period, in which the support of colleagues plays a key role.

SUBSTANCE ABUSE, including alcohol, is a recognized hazard in the medical profession, but the true magnitude of the problem is unknown.[1] Clearly, it is more prevalent in some specialties than others. For example, although anesthesiologists comprise only 4% of the physician population, they make up between 9%-14% of physicians hospitalized for substance abuse.[2-5]

Successful rehabilitation of chemically impaired physicians begins with an understanding of the psychodynamics of abuse and a compassionate attitude. (Although for this publication the information in this manuscript is related to physicians, it is just as pertinent to nurses, dentists, osteopaths, veterinarians and others in the field of medical care.) A judgmental, legalistic attitude will only undermine attempts at intervention and may delay the onset of effective treatment. A punitive approach has even resulted in suicide in some instances. The most successful treatment and rehabilitation programs, such as the program for impaired physicians of The Medical Society of Virginia's Physicians Health and Effectiveness

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Committee, rely instead on the concept that chemical dependency is a disease entity rather than an act requiring punishment.[6-12]

Physicians dispense drugs in their day-to-day practice and understand the pharmacology involved. Not only are they surrounded with many agents, some of which have high abuse potential, but they are also in "control" of the effects these agents have on patients. Thus it is understandable that they should have difficult accepting the fact that these drugs might control themselves and result in addiction.

The colleagues of addicted physicians may unwittingly support their habits by denying the possibility that professional associates could be abusing drugs (the "conspiracy of silence")[13] and by blaming excessive drinking or repeated episodes of aberrant behavior on job stress, personal or family difficulties, or any number of other rationalizations.[14] In addition, it is extremely hard for members of a professional association to accept that this might be happening in "our group." Only in retrospect is it easy to realize how turning a blind eye has covered up the problem and delayed successful treatment.[11]

Identification

Frequently, chemical dependency is first detected by observing behavioral changes in a colleague who has been a good friend and associate for a number of years. The addicted physician initially stops going to community activities, such as church and civic meetings, and gradually becomes isolated from friends and family. Marital troubles usually surface before a deterioration in professional function is observed. Occasionally there are changes in the place of employment. Frequent moves from city to city may be subtle indicators of chemical dependency. Changes in work habits usually do not develop until these other signs have appeared.[12,15]

These changes relate in part to the physician's specialty. For example, anesthesiologists who are becoming habituated to controlled substances may gradually begin to exhibit a preference for working alone and may go off to unusual places, such as a storage room or laundry area, to self-administer medications. Often their practice becomes heavily weighted toward narcotic-based anesthetic techniques. Heavy "wastage" of narcotics in sight of others may only be the dumping of saline solutions that have been substituted in narcotic syringes after the medication has been self-administered or hidden. Refusal to take lunch breaks and offers to take night call for others are often signs that a physician wants to be close to a source of drugs. Suspicion that an anesthesiologist is abusing opioids may be aroused following a coffee or lunch relief when narcotics left in syringes are found to be clinically ineffective. While this may be dismissed as a "bad batch" of fentanyl, morphine, etc., the more likely reason is that the syringe no longer contains the purported drug. Although the suspected drug abuser is showing a preference for working longer hours, there is usually evidence of sloppy record-keeping and deterioration of clinical skills.

Personal habits may also begin to change. Previously stable doctors may develop mood swings or bouts of shaking and chills when blood levels of drugs are lowest. Often long-sleeved shirts are worn even in hot environments, not only to cover needle marks on the arms but, more commonly, because of the feeling of chilliness that may accompany withdrawal. Evidence of a deterioration in personal hygiene, occasional accidents, or withdrawal from leisure activities, friends and family may all point toward a dependence on chemical substances.[16]

Substance abuse may be first suspected by reports from non-professional sources. Conviction for driving while intoxicated, word of socially inappropriate or repeatedly loud and boisterous behavior, complaints from patients or non-medical personnel, such as page operators, all should raise suspicions.[15]

Verification

Emphasis must be placed on a discreet and compassionate approach to the suspected abuser.[9] Direct confrontations or suggestions to "clean up your act" may only serve to drive the physician into more secretive behavior, thus making successful intervention all the more difficult. Guidance as to how to proceed may be obtained from the Physicians Health and Effectiveness Committee of The Medical Society of Virginia. (Most other state medical societies have similar programs.) Trained investigators/interveners from that program may discreetly obtain independent confirmation, preferably from caring colleagues, who can verify the initial observations. Corroborating evidence may take many forms. The most blatant example is the physician who is writing prescriptions for personal use, perhaps not for his/her drug of choice but for medications to ease the symptoms of withdrawal or the side effects of the drug of choice.[12]

Frequently it is useful to obtain supporting information from the family. Although families will often attempt to cover up an alcohol problem or believe that they can handle it alone, the behavioral changes associated with substance abuse may

arouse extreme concern in the drug abuser's spouse and children.[15] An understanding approach, with emphasis on obtaining prompt and effective treatment, may persuade the family to assist in bringing about a successful resolution of the problem.

Detailed factual information may be needed during an intervention to convince the physician in question that a serious problem exists and that immediate help is needed. The suspected abuser initially will attempt a variety of excuses and avoidance maneuvers to dissuade interveners. Typically, the chemical abuser is extremely skillful at this since denial of the problem is a primary coping mechanism.[12,15] No matter what subjective information is available, it is imperative that enough objective evidence be accumulated to be certain that substance abuse is occurring and that it can be documented. If there is any doubt, probably the best course of action is to wait and accumulate more data.

Intervention

When corroborating evidence verifies chemical abuse in a physician, plans should be made for intervention and appropriate treatment referral. In order to be a successful intervener, one must be able to address the physician as a friend and colleague who is concerned for his/her well-being and also with an objective view of the situation at hand. It is necessary to notify the department chairman or chief of staff; rarely, however, should this authority figure manage the face-to-face intervention since that may tend to make the abuser more reluctant to admit that a problem exists.

Intervention is usually best managed by people especially trained in these techniques who are not personal friends of the physician suspected of being chemically dependent. It is an emotionally stressful experience for all concerned and should never be done alone.[8] Those not trained in intervention should seek assistance from The Medical Society of Virginia's program before confronting a chemically dependent colleague. The Physicians Health and Effectiveness Committee has a cadre of experienced investigators and interveners who are willing to help.

The best intervener is often a physician who is recovering from chemical dependency. Experienced interventionists are a valuable resource, not only because they can offer practical advice on how to carry out an intervention but also because they can recognize most of the ploys that the chemically dependent physician may use in denying illness.

The intervention team must have an understanding of the goals and methods to be used by the treatment program to which they will refer the patient following a successful intervention. Institutions that specialize in treating physicians have both the skills and the prior experience needed for appropriate treatment.[9,13] These facilities rapidly strip away the "deity" from the MD, a process that must be accomplished at the outset of treatment to make a successful outcome likely.

Another compelling reason for sending colleagues to facilities that specialize in treatment of physicians is that it is crucial for the patients to understand that they are not the only physicians who ever underwent treatment for chemical dependency. These people have become accustomed to being successful in life, and the experience of being discovered as an addict and being taken into treatment is particularly traumatic and demeaning. When surrounded by peers who have been through similar experiences, the newly diagnosed addict will soon realize that his is not a unique situation. This realization is essential for regaining feelings of self-respect and hope for successful treatment. Furthermore, recovering addicts can recognize in themselves the pathological coping mechanisms that other physicians commonly use in dealing with dependency. The result is a stripping away of the veneer of the omnipotent dispenser and controller of drugs and a realization that the drugs have indeed been controlling the physician instead.[9,12,13]

Once a decision has been made to proceed with intervention, it is important that every detail of the process be arranged beforehand. Confirm that space is available in an appropriate treatment facility before beginning the intervention. Make travel reservations in advance and decide who is to accompany the patient. Both an appropriate intervention room and an excuse for inviting the suspected impaired physician to that room should be decided upon in advance. It may be necessary to confront the individual in his or her office. Ideally, however, the intervention room should be arranged meticulously, with the correct number of chairs and a firm message to the receptionist that there are to be no interruptions. It should be understood clearly who is to be the principal intervener. Occasionally, family members may be asked to participate in an intervention; whether or not their presence is indicated should be determined by those investigating the suspected physician. If they are to be present, their role in the intervention must explained in advance.[8] The documents to be used in helping the colleague accept the fact that he or she is chemically dependent should be in the room. A contingency

plan for the use of force should be worked out in case the physician becomes belligerent.

It must be made abundantly clear at the outset that the interveners are there as advocates and are not playing punitive roles. Thus the opening statement of the intervention should contain a phrase similar to "We are concerned for your welfare and safety. We believe you are addicted to drugs (or alcohol), and we want to help you get treatment for this disease."

Almost always, the physician initially will deny the problem, perhaps even violently, although violence usually implies that the interveners are correct. The intervention should not be an inquisition but should emphasize strongly that chemical dependence is a disease. The interveners must stress their overwhelming concern for the physician's well-being. It may require persistent, slow, gentle pressure, presenting fragments of evidence one at a time. If the spouse is part of the intervention team, it may even be necessary to threaten marital separation unless the physician agrees to undergo treatment willingly.

During interventions, physicians will often ask for time off to get things straightened out, frequently protesting that they can lick their problems themselves. "Just give me the weekend and I'll have things sorted out." The appropriate response is to reject delay outright. In doing so, the intervener might reply, "You are at a crossroad. One path leads to certain death, and you need do nothing to remain on that route. The other path leads to help and recovery; if you want that route, it is available to you right now."

If an initial intervention is unsuccessful, it should be repeated within a few days by a second team of interveners. Several interventions are sometimes needed before a physician agrees to treatment.[13] If the suspected physician absolutely refuses to enter a treatment program, it is possible to offer referral for a 96-hour evaluation at a treatment facility specializing in caring for physicians.[13] During this evaluation to confirm the existence of addiction, the physician will undergo a comprehensive workup. He also will be exposed to a multitude of impaired professionals and thus will begin to realize that he is not alone.

If none of the above approaches succeeds in convincing the physician that hospitalization is required, then the remaining trump card is to threaten to notify the State Board of Medicine and the controlled substance authorities. Diversion of controlled substances is a felony. This extreme threat should then be amended with the comment that there is a possibility of beginning treatment today—NOW, before loss of license or practice, before loss of family and job.

Assuming that one of these therapeutic strategies has worked and the physician has acquiesced to treatment, one of the interveners should notify the treatment facility that the patient is on the way, while another intervener stays with the patient. After a successful intervention, it is extremely important not to let the patient out of sight. At this point, all will have feelings of overwhelming guilt, and some may still deny that they have a major problem. Thus in a fit of anxiety, remorse or despondency, the occasional patient may attempt suicide, especially if left alone. Most addicts, however, express a sense of relief at being on the way to treatment and may want to talk about it. Their previous fears of not knowing from where the next fix is coming, and of being discovered and the intervention have left them emotionally exhausted. For these reasons, a trusted friend should accompany the patient continually from the intervention room to the reception area of the treatment facility, even if long distances are involved. It is not necessary to say much during the trip; the mere fact that you care enough to accompany your colleague bears eloquent testimony to your friendship.

Rehabilitation

While treatment programs vary considerably throughout the country and analyses of long-term results are inconclusive,[17] the format followed by the Medical Association of Georgia's Impaired Physician Program has become a model and is followed by The Medical Society of Virginia's program. It involves a minimum of one month of intense inpatient therapy for chemical dependency and three additional months in a halfway house, where the recovering physician receives continued psychological support and becomes involved in counseling other chemically dependent persons. The latter process, known as "mirror-imaging," enables the recovering addict to recognize that the psychological manuevers used by other abusers are the same ones that he or she once used.

In some cases the majority of therapy can be provided on an outpatient basis after the patient has been detoxified adequately. Successful outpatient programs are conducted as rigorously as are those for inpatient therapy. Occasionally the physician in treatment will be permitted to work during the day and attend treatment sessions in the evenings. The keys to success in programs of this sort are that they are directed by those familiar with the manage-

ment of the chemically dependent physician and that they are tailored to each patient.[9]

Hospitalization is expensive. Some insurance programs reimburse with limitations, and some disability plans may also assist in financing treatment costs. The Medical Society of Virginia's Physicians Health and Effectiveness Committee is exploring ways to help physicians hard pressed to pay for the treatment they need and want.

Resuming Practice

Treatment is not a magic cure for chemical dependency. The addict does not just go away and then return in several months without a desire for alcohol or drugs. The feelings of low self-worth and the social ostracism that accompanied abuse may continue. While treatment will have dealt with these issues, real recovery can only begin away from the protected environment of the treatment center, and here it is necessary for the colleagues of the recovering physician to play a supportive role once again.[18] A logical starting point is to maintain contact with that person during treatment. This keeps open the lines of communication that will be important in the future. During this time maintaining privacy, without secrecy or misrepresentation, will help to build a foundation of trust.

The return to mainstream life and profession is a difficult time for both the recovering physician and his colleagues. For those who are recovering there are memories of the drugs that pulled them down. For those in practice there is the concern of medical-legal liability and the fear of having to look out for a "weak" colleague.[11] In fact, however, a physician who is recovering from chemical dependency is probably no less competent to practice medicine than is a colleague with any other successfully treated chronic disease.

The first item of business for the returning doctor is to arrange the programs that are the keystones to continued recovery. Many after-care programs run for 20 months or longer and utilize random, witnessed urine and blood sample tests as evidence of continued sobriety.[9,19,20] Almost always these programs involve active participation in support groups such as Alcoholics Anonymous and/or Narcotics Anonymous as well as groups comprised primarily of recovering physicians.[13,20,21] In addition, the recovering physician needs someone, preferably a person experienced in addictionology, to monitor the recovery. Ideally, this should not be a friend or colleague, in order to avoid conflicts of interest or ill feelings. Other elements in after-care may include long-term therapy with both disulfiram and naltrexone,[22,23] in addition to regular followup with The Medical Society of Virginia program, family therapy, and participation in both spiritual activities and an exercise program. Finally, the recovering physician needs to agree that a urine and/or blood sample may be requested at any time if there is a question as to sobriety.[20]

Until the recovering physicians have established support systems, it is wise that they not return to practice, let alone administer the drugs they formerly were abusing. Similarly, the use of over-the-counter medications by the recovering physician should be strictly prohibited because of the undesirable pharmacologic effects of some of these drugs.[24]

Even in the best of circumstances a relapse may occur.[20] It is easy for a professional peer group to construe relapse as a failure, and many times there is anger at the chemically dependent doctor, particularly since deception had to be involved in the relapse.

For many recovering persons, however, relapse is part of the road to ultimate triumph over their disease.[20] It is not the chemically dependent physician but the disease that cannot be trusted. The recovering doctor is acutely aware of this paradox, and once this fact has been grasped by professional colleagues as well, then all involved will be on the road to successfully treating this incurable, but arrestable, illness.

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Help for a troubled friend is only a phone call away.

If you suspect a colleague is experiencing problems with alcohol or drug abuse, don't contribute to the "conspiracy of silence," call The Medical Society of Virginia's Physicians' Health and Effectiveness Committee. A non-punitive approach through rehabilitation *is* an alternative. Your report is kept confidential. Ask for Lorraine McGehee at MSV headquarters, (804) 353-2721.

Chronic *S aureus* Pneumonia Presenting as Mediastinal Mass: Case Report

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PNEUMONIA due to *Staphylococcus aureus* accounts for 2%-10% of acute community-acquired pneumonias.[1] *S aureus* pneumonia occurring sporadically or, with increased frequency, after influenza epidemics[2] has most often been associated with a fulminant course and marked mortality despite aggressive therapy.[2-6]

Scattered reports of staphylococcal pneumonia characterized by a chronic or subacute presentation with a rather indolent clinical course have been recognized since 1952.[6-10] The difficulties in clinical recognition and diagnostic approaches have been highlighted in many of these cases.[9-10]

This reported case of chronic *Staphylococcus aureus* pneumonia was associated with clinical and radiologic features mimicking a neoplastic process.

Case Report

This 68-year-old white female with a history of hypertension, diabetes, and coronary artery disease was admitted to the University of Virginia Medical Center on 2/13/84 for elective coronary artery bypass surgery. Upon admission she also complained of a productive cough for five months, a 30-pound weight loss, and malaise. She denied fever, rigors, chills, night sweats, pleuritic chest pain, hemoptysis, and wheezing.

There was no history of travel, exposure to tuberculosis, or industrial exposure. She was a nonsmoker. A brother had been diagnosed as having pulmonary sarcoidosis at age 29. Her medications on admission included nifedipine, isosorbide dinitrate, propranolol and chlorpropamide.

On admission she was afebrile and normotensive with a pulse of 68/min and respiratory rate of 22/min. She appeared chronically ill and in no acute distress. There was no rash or peripheral adenopathy, and head, eyes, ears, nose and throat were normal. Lung exam revealed intermittent rhonchi and decreased breath sounds at both bases posteriorly without evidence of consolidation. A 2/6 systolic ejection murmur was present at the left sternal border without radiation. No abdominal masses, tendernesses or organomegaly were present. The remainder of the exam was normal.

The serum sodium was 129 mg/dl and glucose 391 mg/dl. The remainder of her serum chemistries were normal. Alkaline phosphatase was elevated at 255 IU/L (normal 20-95 IU/L) while her other liver enzymes were normal. A complete blood count revealed a WBC of 16,600/mm with 67 neutrophils, 24 lymphocytes, 8 monocytes and 1 eosinophil. Her hematocrit was 44%. Platelet count and coagulation studies were normal. An erythrocyte sedimentation rate was 80 mm/hour. The urinalysis and EKG were normal. An admission chest x-ray (Fig. 1) demonstrated bilateral mid- and upper-lung zone infiltrates, with a reticulonodular appearance and an enlarged upper mediastinum on the right suggesting a mass and/or adenopathy. An arterial blood gas drawn while the patient was breathing room air was pH = 7.57, pCO_2 = 31 mm, and pO_2 = 61 mm.

On the basis of her chronic history, weight loss and chest x-ray she was initially felt to have a neoplastic process, with concern also given to tuberculosis or fungal etiologies. Her workup included a negative PPD (5 and 250 TU) with a positive reaction to tetanus toxoid, negative collagen vascular screen, normal angiotensin converting enzyme level, and negative sputums for cytology, acid fast smears, and fungi. Serologic studies for histoplasmosis, and blastomycosis were negative. The syndrome of inappropriate ADH secretion was corroborated by osmolatity and urine sodium studies. Pulmonary function tests revealed a moderate restrictive defect and a decreased DLCO to 70% of predicted. A gram stain of expectorated sputum revealed numerous neutrophils and clusters of gram-positive cocci. Sputum cultures grew *Staphylococcus aureus*, sensitive to methicillin and resistant to penicillin.

A computed tomographic (CT) scan of the chest revealed a right superior posterior mediastinal plaque-like mass extending from the superior vena cava to the esophagus (Fig. 2) as well as diffuse bilateral infiltrates in the mid- and upper-lung

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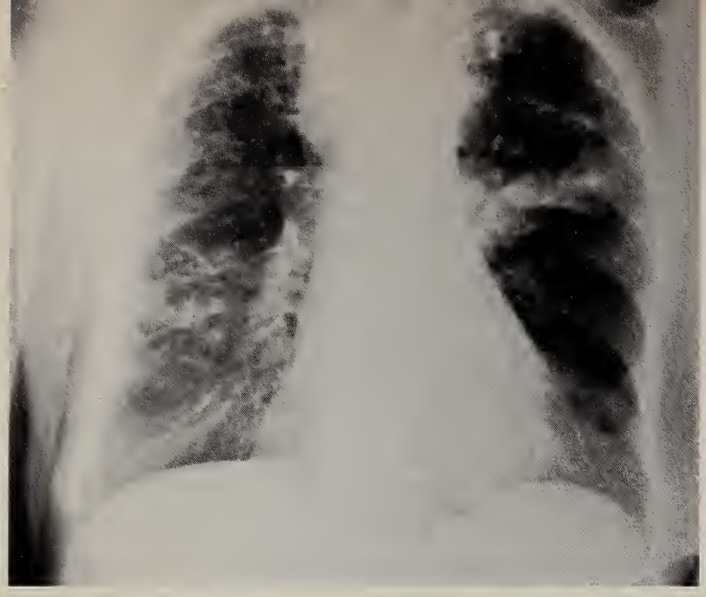


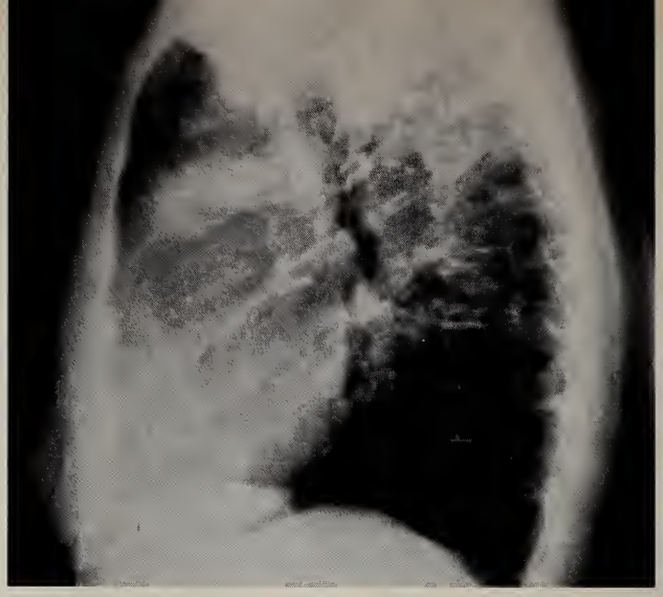
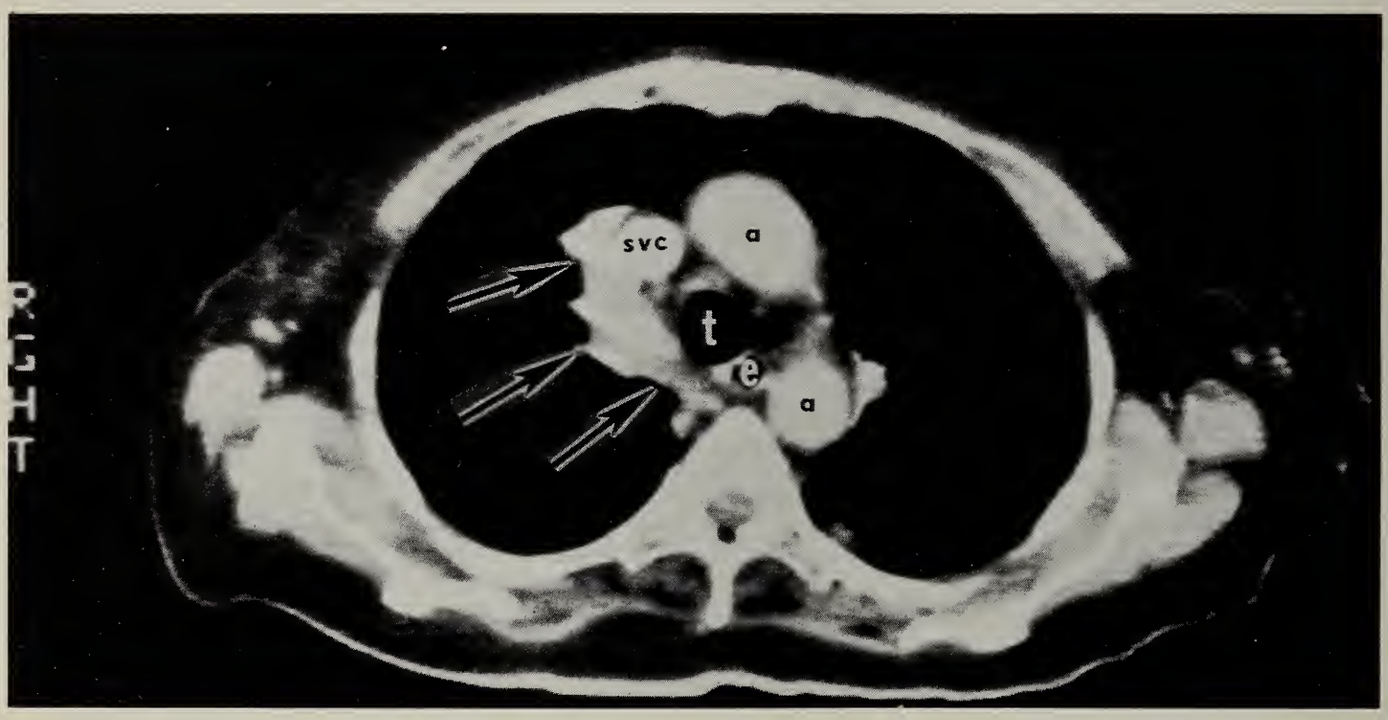


Fig. 1 (above). PA and lateral chest admission x-ray demonstrating bilateral mid- and upper-lung zone infiltrates, some with reticular-nodular appearance, and enlarged upper mediastinum, especially on the right.

Fig. 2 (below). Computed tomographic scan of the chest demonstrating right superior posterior mediastinal mass (arrows) extending from the superior vena cava (svc) to the esophagus (e); trachea (t) aorta (a).



zones. The CT appearance was strongly suggestive of a neoplastic process.

The patient subsequently underwent a right posterior thoracotomy, mediastinoscopy, and open lung biopsy for definitive diagnosis. At surgery there was extensive consolidation of the right upper lobe with adhesions and torquing of the mediastinum. No adenopathy was found. All biopsied sections of lung revealed a necrotizing bronchopneumonia from which *S aureus* was grown with identical sensitivities as the sputum isolate. Special stains and cultures for mycobacteria and fungi were negative. A teichoic acid antibody test was positive at a dilution of 1:8.

Postoperatively, the patient was treated with nafcillin (8 g/d) intravenously for two weeks with improvement in cough, sputum production, arterial blood gases and chest x-ray. The patient was discharged on oral cloxicillin, which was continued for four weeks. At that time, a chest x-ray showed considerable clearing of the infiltrates and mediastinal fullness. She has remained free of respiratory symptoms.

Discussion

Sporadic or post influenza pneumonia due to *Staphylococcus aureus* is very often an acute, toxic and progressive illness associated with significant

morbidity and mortality rates as high as 70%.[1-8] The case reported here adds to the spectrum of lower respiratory infection associated with *S aureus*, given its indolent five-month course and radiographic presentation as a mediastinal mass lesion.

Several series of *Staphylococcus aureus* pneumonia since 1952[7] have mentioned cases that were associated with rather benign courses quite responsive to antibiotics.[6-8] The majority of these cases have not been associated with influenza.[6-8] Kuperman and Fernandez[9] in 1970 carefully detailed the courses of two sporadic cases of subacute *S aureus* pneumonia. Underlying disease in these two elderly males included mild COPD and diabetes. Both patients presented with a chronic productive cough, mild fever, anorexia and weight loss. Radiogaphically the two cases were associated with lung abscess and pneumatocele formation. The diagnosis in these cases was made by sputum culture. Both patients responded to antibiotic therapy and recovered without sequellae.[9] The most recent case of subacute staphylococcal was reported by Gallis.[10] The patient was 17 months post cadaveric renal transplant and presented with four weeks of productive cough, fever and dyspnea. Sputum, bronchial washings and open lung biopsy all grew *S aureus*. Histopathologically a necrotizing pneumonia with multiple abscesses was seen. The patient responded to antibiotic therapy with an antipenicillinase penicillin.[10]

These cases, as well as the one reported here, demonstrate that *S aureus* can be associated with pneumonia that is chronic in presentation and benign in its subsequent course. The five-month history of a productive cough seen in this case represents the longest duration of symptoms before diagnosis. All of the cases have had symptoms of productive cough in association with constitutional symptoms including weight loss. These symptoms are quite similar to those seen with cases of primary lung abscess.[11] Underlying diseases have been seen including cardiopulmonary disease, diabetes and post renal transplant, but these conditions have not been overly debilitating. The majority of subacute/chronic processes appear to be related to sporadic cases rather than being post influenza. Radiographically, the cases by Kuperman and Fernandez,[9] Gallis[10] and the case reported here have demonstrated abscess and pneumatocele formation.

Diagnostically, this case as well as that described by Gallis[10] were convincingly documented by culture and histopathology of open lung biopsies. Colonization rates as high as 15%[12] in the general population makes the diagnosis of *S aureus* pneumonia by sputum culture alone difficult, especially in subacute or chronic cases. In this case, despite the many clinical indicators for an infectious-inflammatory process, including an elevated sedimentation rate, purulent sputum and positive sputum cultures for *S aureus*, it is unlikely that an invasive procedure could have been avoided, given the prolonged course of illness, the radiographic presentation, and the lack of specificity of these indicators.

The positive teichoic acid antibody titer seen in our case suggests another means to establish the etiologic diagnosis of chronic cases of *S aureus* pneumonia. However, extensive experience with this test in this clinical setting is lacking.[13] Importantly, all of the cases reported by Kuperman and Fernandez,[9] Gallis[10] and this case have responded successfully to antibiotic therapy alone, though prolonged treatment with oral agents has been required in some cases.[10]

One should consider the possibility of *S aureus* as the etiologic agent of chronic pulmonary or mediastinal mass lesions.

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In Encephaloceles, Autopsy Holds Key to Genetic Counseling: Case Reports

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MECKEL-GRUBER syndrome is a complex malformation syndrome characterized by cystic kidney disease, occipital encephalocele and polydactyly, as well as many other clinical findings. The syndrome is an autosomal recessive genetic disorder that has a recurrence risk of 25%. The two cases presented here emphasize the need for autopsy in order to give accurate genetic counseling.

Case Reports

Case 1. This infant male was born to a 29-year-old gravida 2, para 1 white female by Caesarean section. The infant's birth weight was 2,600 g. The autopsy findings included ruptured occipital encephalocele, absent occipital lobes, flat cranial vault, short neck, small chest and thoracic cavity, flat, rotated and folded ears, V-shaped cleft of the posterior hard and soft palate, abnormal mitral valve, intestinal malrotation, adult-size dysplastic kidneys, distended abdomen with small ureters and hypoplastic bladder, micropenis, cryptorchid testes, talipes equinovarus, and postaxial polydactyly of the hands and feet. Chromosome analysis revealed a normal 46,XY karyotype. The family history was negative for consanguinity, mental retardation and other birth defects.

Case 2. The patient, a male, was born to a 26-year-old gravida 1, para 0 white female. The infant was the 2,800 g product of a term, uncomplicated pregnancy who died at one hour postpartum of respiratory failure with hypoplastic lungs and central nervous system malformations. The autopsy findings included: left occipital encephalocele, immature brain, microcephaly, micrognathia, low-set rotated ears, cleft palate, bilateral renal cystic dysplasia, hypoplasia of the urinary bladder and ureters, undescended testes, accessory adrenal glands, portal fibrosis of the liver, postaxial polydactyly on the right hand, clubbed feet and pulmonary hypoplasia. Chromosome analysis revealed a normal 46,XY karyotype. The family history was negative for consanguinity. A maternal cousin was reported to have had a child with hydrocephalus.

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Discussion

In 1822, J.R. Meckel was the first to describe the syndrome characterized by polydactyly, encephalocele and cystic kidney disease in two siblings, a male and female. G.B. Gruber, in 1934, reviewed the syndrome and reported nine cases similar to those of Meckel. Since then, many additional cases have been reported,[1,2] and Meckel-Gruber syndrome has been recognized as a genetic disorder. Consanguinity is not a predominant feature in these families, although it has been reported.[3] The inheritance of the Meckel-Gruber syndrome is consistent with an autosomal recessive, genetically transmitted trait. This is supported by the fact that Meckel-Gruber syndrome recurs among the offspring of normal parents, affects both sexes equally, is associated with parental consanguinity and shows concordant expression in monozygotic twins.[4] There is little evidence to support heterozygous expression of the disorder in the carrier parents, although miscellaneous anomalies in some relatives have been reported.[5,6]

The syndrome can be associated with many malformations[1,7,8] including microgenitalia, heart defects, cleft lip and/or cleft palate, and short limbs, but three defects, polydactyly, encephalocele, and cystic kidneys, are the most characteristic features. Thus 100% of patients with Meckel-Gruber syndrome have cystic kidneys; 80% have encephaloceles; and 70% have polydactyly.[9] Typically, the kidneys are grossly enlarged, up to two times the normal size for gestational age. In a study by Rapola, the kidney weights in 31 cases varied from 80-1100 g. This represented a 5- to 50-fold increase over the expected, based on body weight.[10] In a study by Salonen,[5] 50 of 51 cases examined had microscopic cysts, and by histopathological examination all had cystic dysplastic changes with very little normal renal parenchyma. The exact classification of the renal defects is somewhat controver-

sial. In cases where the kidneys are not cystic, they are often markedly hypoplastic,[11] although Fraser and Lytwyn question the diagnosis in the absence of cystic dysplasia of the kidney.[12] The polydactyly usually involves one or two extra postaxial digits, most often bilateral on both hands and feet. If encephalocele is not present, hydrocephaly or anencephaly is often found.[11] Abnormalities of the cranium are often classified clinically as hydrocephaly, but pathological examination shows that the malformation is an encephalocele, hydranencephaly or meningomyelocele.[9] Other anomalies associated with Meckel-Gruber syndrome include heart defects in 40% of the cases, true hydrocephalus in 15%, anencephaly in 10%, and cleft lip and/or cleft palate in 30%.[9] Other malformations which may be associated with the syndrome include absence of the olfactory lobes, short limbs, microgenitalia or ambiguous genitalia, hypoplastic ureters, gastrointestinal anomalies, accessory spleens, absent adrenal glands, absent pituitary gland, club foot, hepatic dysgenesis, and a distinctive facial appearance marked by a sloping forehead, anophthalmia, microphthalmia or coloboma, micrognathia, and dysplastic ears.[12-14] When studied, the chromosomes have invariably been reported to be normal, and affected infants are usually stillborn or die shortly after birth. The variety of findings in our two cases are consistent with the Meckel-Gruber syndrome.

The frequency of the gene for Meckel-Gruber syndrome has been estimated to range between 0.0012 and 0.0044, corresponding to a population incidence rate of 1 in 700,000 to 1 in 52,000 and yielding a carrier frequency of about 1 in 400 to 1 in 125.[11] Fried suggests that the syndrome is more common among Jewish families than other ethnic groups and has estimated that the incidence in Israel may be a high as 1 in 50,000.[15] Meckel-Gruber syndrome is an autosomal recessive disorder; as such, two copies of the abnormal gene must be present in order for the infant to be affected. Therefore, the parents are considered to be obligate carriers and each contributes one of the abnormal genes to the offspring. The recurrence risk for a couple with a previously affected child is 25%.

Even within families the phenotypic expression of the Meckel-Gruber syndrome can be quite variable. Therefore, when two or more of the major features are found in a newborn, prenatal diagnosis is indicated in any subsequent pregnancy. Prenatal diagnosis of Meckel-Gruber syndrome can be made by ultrasound, and the analysis of the amniotic fluid for alpha-fetoprotein provides a convenient screening test. From 1975 to 1983 at least 13 cases were recognized by the finding of an elevation of the amniotic-fluid alpha feto-protein,[9,16-18] and it has been estimated that this procedure permits the detection of about 75% of affected fetuses.[17] Unfortunately, a normal level of alpha feto-protein does not exclude the syndrome. In some cases, a false negative test result can be attributed to an intact cutaneous or epithelial membrane covering over the encephalocele, while in 20% of the cases, no neural tube defect is present. Meckel-Gruber syndrome is often misdiagnosed as an uncomplicated neural tube defect on ultrasound.[9,19] To aid in prenatal diagnosis, several tests are suggested.[19,20] Maternal serum or amniotic fluid alpha feto-protein should be performed around 17-18 weeks gestation with serial assay if necessary. Ultrasonography is recommended early and serially because of the variability in the onset and rate of progression of the features of Meckel-Gruber syndrome. Chromosome analysis is suggested to rule out aneuploidy, notably trisomy 13, in which dysplastic kidneys may also be found.

When autopsies are not performed, the presence of cystic kidney disease may not be detected or confirmed. Other cases may result in fetal demise and escape diagnosis because of maceration.[21] It has been estimated that as many as 5% (5 of 106 cases) of newborns with neural tube defects have Meckel-Gruber syndrome.[22] Since the recurrence risk of an isolated neural tube defect is only about 2%-3%, the importance of obtaining an autopsy should be apparent. If dysplastic or cystic kidneys are found in an infant with either a neural tube defect or polydactyly and normal chromosomes, the appropriate recurrence risk is 25%.

Only through careful pathological and clinical evaluation can accurate genetic counseling and prenatal diagnosis be offered to the parents of children with this disease.

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POINT OF VIEW

Perspectives on the Prevention of Nuclear War

PHYSICIAN interest in the medical aspects of nuclear war has heightened dramatically during the past six years. The impetus for this interest has been the increasing realization that nuclear weapons have become a major public health problem, requiring appropriate preventive measures.[1,2]

World nuclear arsenals have increased from a few hundred weapons in the 1950s to over 40,000. That represents 20,000 megatons, or five tons, of explosives for every man, woman and child living on this planet.[3] The stockpiling of nuclear weapons continues unabated, even though both the United States and the Soviet Union have long since acquired arsenals sufficient to destroy each other several times over. Former Secretary of Defense Robert McNamara has observed that "beyond 200 megatons, all you can do is rearrange the rubble."

Initial interest in limiting the effects of nuclear warfare centered around civil defense planning. Proposals were based on a theoretical 6,559-megaton attack on the 250 American cities determined to be at high risk, those with populations of 250,000 or greater.[4] The plans assumed a three-to-five-day advance warning of attack and required a form of population dispersion termed "crisis relocation." The 150 million Americans living in high-risk areas were to be transported to rural areas 50 to 300 miles away, there to be sheltered with the 75 million residents of those regions. During the warning period, approximately 30 million persons would commute daily into the cities to maintain vital urban services.

Because of obvious impracticalities, civil defense planning has not received enthusiastic support. Even assuming implementation of crisis relocation plans, as many as 72 million Americans still would die within the 30-day period after the attack.[5] Blast trauma, burns and infection would be major causes of death. With 80% of the nation's hospitals and pharmaceutical companies destroyed, medical care would be virtually non-existent. Most of the severely injured would die. The large percentage of physicians who live or work in the nation's urban centers also would be casualties.

Post-attack survival would be extremely difficult. Many persons would succumb to radiation poisoning as clouds of radioactive fallout drifted away from the destroyed cities. With fuel scarce and highways and railroads destoyed, the prospect of a food supply would be bleak. Infectious disease epidemics (typhoid fever, pneumonia, tuberculosis) would sweep through a population weakened by malnutrition and radiation exposure. Deaths from starvation and disease would exceed those from the initial blast. Cumulative deaths in the United States alone could surpass 150 million by the end of two years.[5]

CLEARLY, prevention is the only realistic response to the medical problems created by nuclear war. On that there is little disagreement. Great controversy exists, however, over how best to prevent nuclear war. There are presently two competing proposals: nuclear deterrence and arms control.

Nuclear deterrence assumes that the certainty of mutual destruction prevents the initiation of nuclear war by either party. It is prohibitively expensive. It requires a seemingly endless arms race. With large numbers of nuclear weapons, the probability of an accidential launch increases. Nuclear weapons may fall into the hands of governments who might use them for revenge or blackmail. Guaranteeing peace by arming for war seems a very contradictory wisdom.

Arms control would appear to be a more rational

approach, but it has proved a very difficult undertaking. Americans fear Soviet totalitarianism and the massive Soviet army. Soviets fear American technology, with its capacity to develop ever more advanced weapon systems. The United States military intervened in Vietnam, the Soviet military in Afghanistan. The list of conflicts is long and very real—Hungary, Nicaragua, Cuba, Czechoslovakia, innumerable others. Interestingly, neither the Soviet nor the American people themselves—the school teachers, shopkeepers, bus drivers—portray each other as having any desire to destroy each other. It is the governments that are in conflict.

Discussion of arms control is complicated by the development of the military-industrial complex. Military promotion, scientific advancement, and a large segment of the American economy have become dependent on the military budget. Many different groups have vested interests in the arms race. Exactly how this conflict of interest affects the arms control negotiation process is unclear.

Physician groups have become outspoken on issues regarding the medical consequences of nuclear war. For their efforts in this area, International Physicians for the Prevention of Nuclear War was awarded the Nobel Prize for Peace in 1985. Only two other physicians in history have been accorded this distinction: in 1949, Dr. John Boyd Orr, director of the Food and Agriculture Organization of the United Nations, and, in 1952, Dr. Albert Schweitzer.

Peace is a goal worth pursuing. John Kennedy once remarked, "Mankind must put an end to war, or war will put an end to mankind."

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VIRGINIA MEDICAL EDITORIAL

Politics and Medicine

Not too many years ago most physicians paid little attention to politics or politicians. They were content to spend their days working in the profession they loved and their extracurricular moments with their families. Only a few showed interest in politics, and usually for these few the political scene was only a fascinating avocation. It is hardly necessary to add that the situation has changed.

Medicine in the United States today is controlled largely by government and (big) business, with the American Medical Association, the state medical societies and the various medical specialty societies providing strong and sometimes effective rear guard action. The difficulties besetting the AMA and other medical organizations rise from the inability of the average physician to see beyond his nose, i.e., to recognize that every new government restriction aimed at medicine affects every physician. It is the old story of the need for a united front.

About politics: actions of the recent session of the Virginia General Assembly present clear testimony as to the effectiveness of an organized approach by The Medical Society of Virginia and the cooperation and leadership of key members of the General Assembly. Ergo, if Joe Blow is a candidate for office and is known to favor those adversarial to medicine or legislation inimical to medicine, it is incumbent upon physicians to become political and work to defeat him. On the other hand, if Joe supports medicine, he deserves our support. We need elected officials who support our profession.

That brings us to the final point. There is a need for more physicians in public office. Specifically, we need more physicians in the General Assembly. There are two effective physicians in the Senate, Dr. Clarence A. Holland and Dr. John C. Buchanan, and one wonders what medicine in Virginia would do without them. There are none in the House of Delegates. Why?

E.L.K., Jr.

Does The System Work?

Two recent jury decisions acquitting famous defendants after letting them hang out to dry in the press and media for seven and five years respectively, make one wonder whether our judicial system really works. We in the medical community, having been faced by exorbitant liability premiums and outrageous jury decisions, have for some time questioned our present tort system, which seems to give all the advantages to the plaintiffs and their lawyers.

One of the decisions involved Secretary of Labor Raymond Donovan, who had been indicted by a grand jury on the urging of a local district attorney after having been cleared previously of any wrong-

doing by a federal special prosecutor and the FBI. It cost Mr. Donovan his federal job, his reputation and $13 million before the jury acquitted him of all charges. He was quoted as saying after he received the good news, "What window do I go to to get my good name back?"

The other case involved a movie director who was accused by an ambitious district attorney of having committed manslaughter when a helicopter crash killed an actor and two children during the filming of a Vietnamese war scene. There again the jury voted for acquittal on all counts.

This year is the 200th anniversary of our Constitution. It may be a fitting time for our elected leaders to take a close look at what has happened to our judicial system. There are obviously many inequities, especially in the grand jury procedures. This may be the year to begin improving, so that Americans can affirm in good faith that the system really works.

W. Leonard Weyl, MD

The Responsibilities of a Physician

Speakers at commencement exercises are most often remembered either for the length of their address or its brevity. I must confess that I remember very little about the content of the address at my commencement except the speaker stated that the most important words that we, as graduates, would hear would be, "In conclusion."

The responsibilities of a physician are many and great. However, I would like to outline for you the ones that I hope you will treasure and try to uphold in the years to come. The Oath of Hippocrates has been used by many generations as a model of ethical principles to follow. The American Medical Association has developed a Code of Medical Ethics that is a modern version of the Hippocratic Oath. Its principles are not laws but statements of conduct which define essentials of honorable behavior for physicians. There are seven of them:

- 1. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.
- 2. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.
- 3. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.
- 4. A physician shall respect the rights of patients, of colleagues and of other health professionals, and shall safeguard patient confidences within the constraints of the law.
- 5. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues and the public, obtain consultation, and use the talents of other health professionals when indicated.
- 6. A physician shall, in the provision of appropriate patient care except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.
- 7. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

Above all, we should be unfailingly dedicated to the best care for our patients both in the scientific practice of medicine and the art of medicine. During the four years of medical school you have learned to make sacrifices in order to obtain your education. This same dedication must carry over in the years ahead as you practice. Your dedication to your profession must also include a dedication to yourself. Time must be alloted in your busy schedule for your own relaxation and refreshment of mind and body. Setting unrealistic goals can be detrimental to your own health and to the health of your patients. Along with this you must realize that you have to dedicate a certain amount of your time to your family. To be a successful, productive physician, participation in your own family's activities is of paramount importance.

Physician involvement in community affairs has been a historical fact in our nation. Physicians were signers of the Declaration of Independence. They have been members of Congress and have made worthwhile contributions to our national program. I encourage you to become active in your communities. You are well-educated and well-informed, and

Presented in expanded form as the principal address to the 1987 graduating class of the School of Medicine, Medical College of Virginia/Virginia Commonwealth University, on May 16, 1987.

you should use your expertise to improve the community in which you live. Service on community boards, commissions, school boards, and governmental bodies should be part of your agenda. I hope some of you will stand for public office and use your broad educational background to benefit mankind in the legislative halls of the state and nation.

Continuing medical education is necessary for your advancement and good patient care. Many of you will continue in long residency programs in your chosen specialty. When you leave an approved residency program, however, it is important that you continue educational courses to keep you abreast of recent advances in medicine. The practice of medicine is a lifelong process of learning.

I urge you to become involved in organized medicine. Join the resident section of your state society and of the American Medical Association. You will find that these organizations are primarily dedicated to the ideals of patient care, the fundamental concern of every doctor. With the ever-increasing number of medical graduates there will be an increase in social, ethical and economic problems facing the profession. We need the input of young, energetic physicians in organized medicine. The resident sections provide an avenue for bringing your ideals and ideas to the mainstream of action. As a graduate of the Medical College of Virginia I urge you to become active in the alumni association. Your alma mater will be able to grow and make continued contributions to society and medicine only with your continued financial support.

In conclusion, always take time to listen. There is an old saying, "The patients will tell you what is wrong, you only have to interpret what they are saying." Sometimes you must listen very long and hard, and always you must listen with compassion.

PERCY WOOTTON, MD

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LETTERS

Creates anti-smoking resolution for personal or office use

In response to the widespread publicity and advertising by the tobacco industry and the need for awareness and recognition of the growing voices of the non-smoking (anti-smokers), this resolution is prepared for appropriate publication and display in homes and offices of concerned citizens:

Vincent H. Ober, DO

6409 Eleanor Court
Norfolk VA 23508

WHEREAS, physicians are dedicated to the care of the sick and the prevention of sickness and disease, and

WHEREAS, there is universal recognition of the disease-producing effects of smoking, and

WHEREAS, the U.S. Attorney General warns that "smoking causes lung cancer, heart disease, emphysema, and may complicate pregnancy," and

WHEREAS, passive smoking is hazardous to one's health, and

WHEREAS, the American Lung Association reports that smoking now kills 350,000 Americans every year (2,000 daily), more than the combined total killed by alcohol, illegal drugs, traffic accidents, suicide, and homicide, and

WHEREAS, The Medical Society of Virginia by resolution endorses the banning of smoking at meetings,

NOW, THEREFORE I, being aware of the poisonous effects of smoking, do hereby pledge my efforts by precept and example to encourage the non-use of tobacco for promoting personal and public welfare.

Signed .....

Finds "fundamental failure" in support of injured infants act

Regarding the recently passed injured infants act:[1]

The Medical Society of Virginia supported this bill, which shares liability for coverage of perinatal birth injuries among all practicing physicians in Virginia with a $250 per year surcharge. It would appear that the problem of perinatal birth injury is either 1) a problem strictly of obstetrical liability or 2) a statewide societal problem. If it is the former, then it should be a matter of obstetrical liablility coverage, not to be shared among other physicians who do not practice obstetrics. (There are other groups of physicians who pay even more in liability coverage than the obstetricians.) If it is the latter, then the problem becomes the concern of the State, to be supported by state tax dollars.

The Society's assurances that "this was the best compromise" notwithstanding, it would appear that the Society ought to represent the interests of all practicing physicians in Virginia, not necessarily those whose breast beatings may be most public. We certainly feel it was a fundamental failure in principle for the Society to support such an aberrant and arbitrary bill.

Donald C. Oxenhandler, MD
James R. Howe, MD

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Annandale VA 22003

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"Conduct of medical assistants can help combat medical liability"

As medical assistant to Ronald K. Davis, MD, chairman of the Professional Liability Committee of The Medical Society of Virginia, I am acutely aware of the medical malpractice crisis in Virginia and all the Society is doing regarding this distressing situation. I personally feel it is imperative that Virginia physicians share with their medical assistants their concerns regarding this issue. One way to help combat medical liability is to be sure that medical assistants always behave professionally and are always striving to be the best educated they can possibly be regarding health care.

I am a member of the Virginia Society of Medical Assistants, affiliated with the American Association of Medical Assistants, Inc. We have 15 chapters throughout Virginia and approximately 400 members. Our objectives are to inspire members to give honest, loyal and efficient service to the profession and the public; to strive at all times to cooperate with the profession in improving public relations; to provide educational services to increase the knowledge and professionalism of our members; and to stimulate a feeling of fellowship and cooperation among our state societies

and local chapters. We have physician advisors on all levels and will never act as a union or bargaining agent. Our educational seminars and annual meetings are of high quality. We urge certification of medical assistants through testing from the national association and recertification through continuing education.

I urge Virginia physicians to encourage professionalism among their medical assistants and urge them to become actively involved in their professional association. My physician-employers feel so strongly about this that they pay my dues, and I hope that I show them this is not only beneficial to me but also to their practice.

Medical malpractice is a blight on the medical profession. Please have your medical assistants contact the Virginia Society of Medical Assistants' membership chairman, Laura Durham, CMA, for more information. Her address is 405 Hawthorne Drive, Danville VA 24541.

Joyce M. Hardee, CMA-A

417 Libbie Avenue
Richmond VA 23226

MSV REPORT EASES RATE HIKE, SAVES DOCTORS $10 MILLION

Basing his ruling on an actuarial report prepared for him by The Medical Society of Virginia, the Commissioner of the Bureau of Insurance denied St. Paul Fire and Marine's request for a 47% liability insurance rate increase but approved a 15% lift. St. Paul acceded to the lower increase, and the change is to go into effect October 1. The Society's actuarial report revealed that the requested 47% hike was based not on Virginia experience alone, as previously, but on "a revised method giving more weight to factors outside Virginia."

The St. Paul companies insure 4,100 physicians in Virginia. The lower rate hike saves them an estimated $10 million.

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HELPING HEALTHCARE PROFESSIONALS TAKE CARE OF BUSINESS

Public Affairs Report

VIRGINIA IS ONE of only two states to hold statewide general elections for all state senators and delegates this year. While local issues will be major factors, national attention will be focused on Virginia to detect any possible national trends for 1988.

DR. RON DOZORETZ apparently has given up on his try for the Virginia Democratic senatorial nomination next year. This moves former Gov. Chuck Robb into a position where he will have to announce soon whether or not he will seek Paul Trible's seat.

MEDICAL MALPRACTICE PREMIUMS will stay stable in Virginia until the end of this year, pending St. Paul's request for substantial increases. The Medical Society of Virginia has taken a very active part in trying to stabilize rates and in intervening with the State Insurance Commissioner.

CATASTROPHIC HEALTH INSURANCE plans for Medicare recipients are continuing on the fast track in both houses of Congress. The initial Administration proposal has been considerably expanded; a conference committee will try to resolve differences this month. Look for a Presidential veto unless some of the "Christmas Tree" features are deleted.

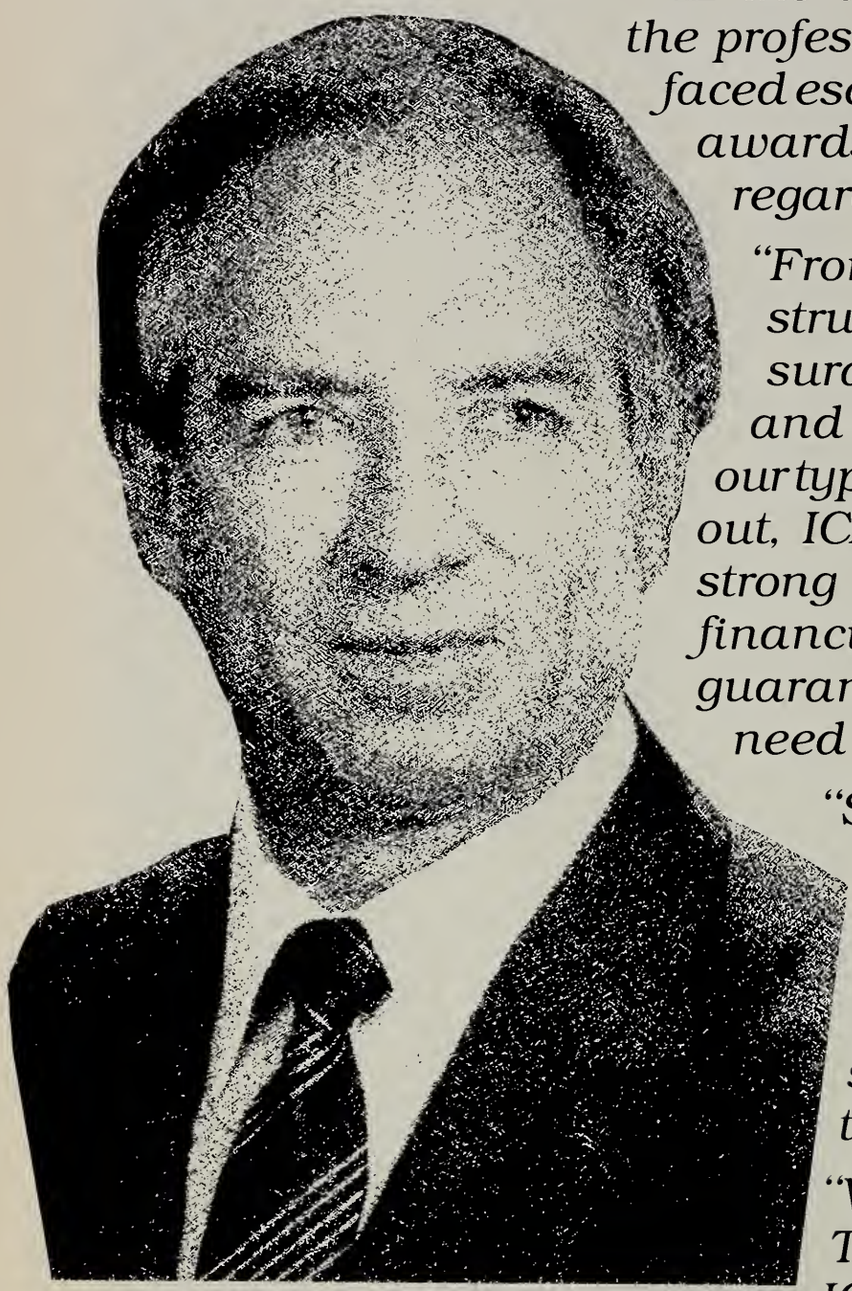
ANOTHER TELEVISION HERO is likely to be born this month. The Bork/Supreme Court hearings will be a showdown fight between the Administration and the liberals in the U.S. Senate. All reports indicate that Judge Bork will do as well as Ollie North.

THE FEDERAL ELECTION commission rejected a complaint by Congressman "Pete" Stark, D-Cal, alleging that AMPAC's independent campaign expenditures against him last fall were in violation of federal election laws. Stark has now filed a complaint against the commission in federal court.

IN A LEGISLATIVE VICTORY culminating nearly seven months of hard work by the AMA on Capitol Hill, the RAP-DRG proposal was deleted from the House Ways and Means Committee's reconciliation bill. The committee also rejected a special fee schedule with possible mandated assignment for radiologic services.

W. Leonard Weyl,MD

"We Understand Your Frustration."



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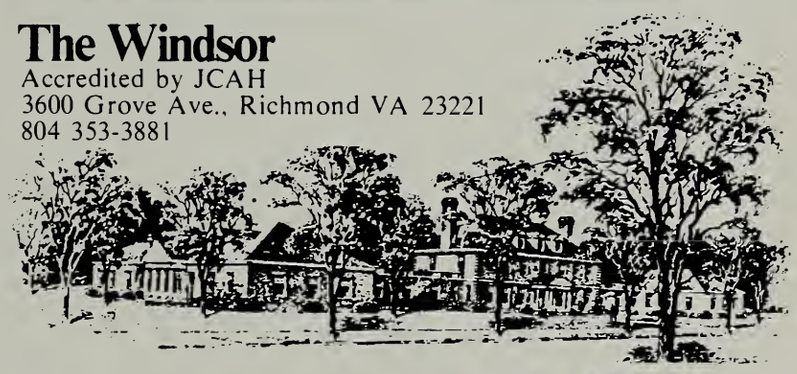

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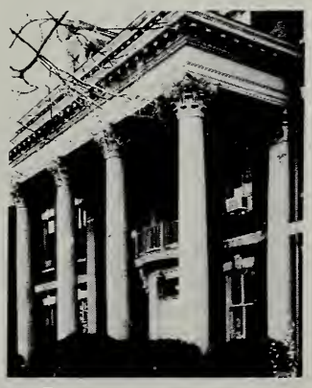

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BREAST CANCER 1987

BOTH incidence rates and the death rates for breast cancer remain high despite much public interest and public education in this area by the American Cancer Society, as well as the media. The knowledge and means for preventing breast cancer are certainly not at hand at this time, but evidence is clearly mounting that earlier diagnosis, particularly mammographic detection of occult lesions, has real benefit. Patients with cancers detected by mammography not only have a better opportunity for long-term survival, but often require less aggressive local treatment than do larger lesions. Nevertheless, this valuable approach has not been adequately exploited in our population of asymptomatic women, due partly to the cost that is usually associated with this procedure, as well as the frequent lack of appreciation of the value of screening mammography by both the asymptomatic woman and her physician. For these reasons, we feel that the report of an innovative low-cost mammographic screening project, sponsored this past year by the Virginia Division of the American Cancer Society, should be of great interest to all practicing physicians. As a result of this project, described in this section by Drs. Paredes and Frazier, this approach has now become a major national public education program of the American Cancer Society for 1987.

The current approach to clinical breast cancer is strikingly different than it was one or two decades ago. In addition to increasing your interest in the potential of breast cancer screening, it seemed appropriate both to describe and to evaluate current diagnostic approaches to breast disease as, well as the choice of locoregional therapies now available. Drs. Wilhelm, Horsley and Eisert summarize the optimal clinical approach to early breast cancer. Also, the proper place for adjuvant systemic therapy for the potential eradication of undiscovered micrometastases needs definition in view of the extensive clinical trial data now available to us, and we have tried to put this approach in perspective.

The key questions relating to various stages of potentially curable breast cancer are really the focus of this section. The answers to these questions are of vital interest to all asymptomatic women in Virginia, as well as their personal physicians.

WALTER LAWRENCE, JR., MD
GERALD GOLDSTEIN, MD

Dr. Lawrence is chairman of the Division of Surgical Oncology and director of the Massey Cancer Center at the Medical College of Virginia/Virginia Commonwealth University, Richmond. Dr. Goldstein is an oncologist at the University of Virginia School of Medicine, Charlottesville, and is president of the Virginia Division, American Cancer Society.

VIRGINIA
MEDICAL
SEPTEMBER 1987

Screening for Breast Cancer in Virginia

Ellen Shaw de Paredes, MD, *Charlottesville, Virginia*,
and Arthur B. Frazier, MD, *Roanoke, Virginia*

A pilot program designed to educate both patients and physicians to the advantages of mammography in the detection of breast cancer and to encourage a reduction in fees for the procedure resulted in the mammographic screening of 8,871 Virginia women and the detection of 42 occult breast cancers. Quality assurance guidelines were developed, primary care physicians participated in examination and followup, and media coverage generated extensive public information. The effort was part of the national breast cancer detection awareness program of the American Cancer Society.

In 1985 the Virginia Division of the American Cancer Society was selected as one of five divisions to develop pilot programs of mammography screening for the National ACS Breast Cancer Detection Awareness Program. The purposes of this program were not only to detect occult breast cancers but also to promote the American Cancer Society guidelines on mammography, to encourage women and their physicians to utilize mammography in the early detection of breast cancer, to encourage a reduction of fees for screening mammograms and to improve the quality of mammography. A task force composed of physicians, other health professionals and public information volunteers was formed to develop the strategies for this screening program.

From the Departments of Radiology at the University of Virginia School of Medicine (Dr. Paredes) and Roanoke Memorial Hospital (Dr. Frazier). Address correspondence to Dr. Paredes at Box 170, University of Virginia Medical Center, Charlottesville VA 22908.

All articles in this section were submitted 6-17-87.

Various studies [1,2] have shown that only small numbers of American women are routinely screened with mammography. Several large screening studies have been carried out in the US and in Europe and have shown that screening mammography in asymptomatic women not only detects cancers at an earlier stage, but also reduces the mortality from breast cancer.[3–5] In the Breast Cancer Detection Demonstration project,[6] 280,000 women were screened with mammography and physical exam; there was no control group as a part of the project. Approximately one-third of cancers detected were noninfiltrating or infiltrating lesions of one cm or less and more than 80% of cancers showed no evidence of nodal involvement. The relative contribution of mammography alone, in the absence of positive physical findings, was higher (41%) than had been shown from previous reports,[7] compared with the 8.7% of lesions found by physical exam alone. As a result of these reports and others, the American Cancer Society in 1983 revised the guidelines for screening mammogram for asymptomatic women to the current recommendations, namely; a

Table 1. Quality Assurance Guidelines for Mammography Screening Program.

- Equipment factors: dedicated unit, low-dose techniques, firm compression device, appropriate target material, KVP for film in 22-30 range or for Xerox 45-55, small focal spot (high quality images)
- Proper processing temperatures
- Image recorder: Xerox, film/screen designed for mammography
- Mammography unit checked within past year for compliance with standards for radiation safety
- Maximum mid-breast dose for two views less than one rad
- Recommended views: craniocaudal, lateral oblique

baseline at 35-40 years, mammography every one to two years for women who are 40-50 years of age, and annual mammography after 50 years.[8]

In 1987 an estimated 130,000 new cases of breast cancer will be diagnosed in the United States, and 41,300 deaths will occur. In Virginia alone, 2,800 new cases of breast cancer will be diagnosed this year; based on current statistics, one in ten American women will develop breast cancer.[9]

Despite these statistics and the recommendations about screening, various studies [1,10] have shown that only 17-41% of women have had a mammogram. There has not been a significant increase in the number of women referred for routine screening mammography.[11] A study of New York family physicians showed that only 8% routinely refer asymptomatic patients over 50 for mammography according to the ACS guidelines, even though the great majority believed that mammography is effective in early detection of breast cancer.[11] Reasons which have been given by physicians for not agreeing with the ACS guidelines for mammography include the high cost, the feeling that mammography is unnecessary in asymptomatic women, concern about radiation exposure, and the low yield of true positives.[12] The concern of women which may dissuade them from having a mammogram include the cost of examination, lack of understanding of the value of the procedure in early detection of breast cancer, fear of discovering cancer, fear of radiation exposure and discomfort from the procedure.[13]

Materials and Methods

In developing the strategies for the screening program, the task force recognized the necessity of addressing the issues related to poor compliance with the guidelines for mammography. Additionally, the need of incorporating a quality assurance program[14] into the screening was known. A subcommittee on quality assurance, composed of radiologists specializing in mammography, mammography technologists and radiation physicists was formed, and the group developed a series of guidelines (Table 1) to ensure that a state-of-the-art level of mammography would be performed and would, therefore, optimize detection of early or subtle breast cancers. Survey forms containing the above information and a complete mammogram from each unit were reviewed by the committee in a blind study.

Facilities not initially accepted into the program because of the data submitted on the survey or the technical quality of the mammograms were given information about what improvements could be made and then were allowed to resubmit another case. A total of 70 facilities which housed 81 units initially expressed interest in the program. A total of 56 facilities with 63 units were accepted into the program and performed a total of approximately 9,000 mammograms.

Women who were eligible for the program were those who were asymptomatic, over 35 years of age, with no personal history of breast cancer, who were not pregnant or lactating and who had not had a mammogram within the previous two years.

Early in January 1986 an extensive media campaign conducted by unit volunteers utilizing TV, radio and newspaper was carried out to inform women about the program and to provide a toll-free number to Virginia Division ACS headquarters. Additionally, fliers and notices about the program were placed on community bulletin boards and in doctors' offices, and were stuffed in grocery bags to provide wide visibility about the project. Seventy-two volunteers were recruited and trained to answer the four mammography hotline phones at the Virginia Volunteer Center weekdays from 9 AM to 7 PM for a two-week period in January; the volunteers interviewed the women for eligibility in the program and registered them. Women who were eligible were sent information about the program and a list of participating facilities. Women who were ineligible were sent information about breast self-examination and were advised to see their personal physician if they were symptomatic. The eligible women then called directly to the facility of choice and scheduled mammography.

At the time of the screening program the cost for a mammogram ranged from $65-$195 at facilities throughout Virginia. The cost of mammography for the patients who came in through the ACS program was significantly reduced to a total fee of $40. The fee was collected from the patient at the time of mammography and no third-party billing was conducted by the facilities. The mammograms were performed throughout February 1986, and several facilities continued the screening into April to accommodate more patients. Throughout the screening program auxiliaries at the hospitals and American Cancer Society public education volunteers helped in the registration and taught breast self-examination to the participants.

There was concern by the participating radiologists about accepting patients without a physician's referral or followup. Additionally, physical examination of the

breasts should be done in conjunction with mammography, since about 10% of breast cancers are detected on physical exam and not identified on the mammogram. Therefore, the task force incorporated the participation of primary care physicians by requiring the name of the patient's physician at the time of registration for the mammogram. Women who did not have a primary care physician were asked to choose a physician from a list of doctors who agreed to follow these women. The mammogram reports were sent by the radiologists to these primary physicians, to whom the patients went afterwards for breast examination and followup.

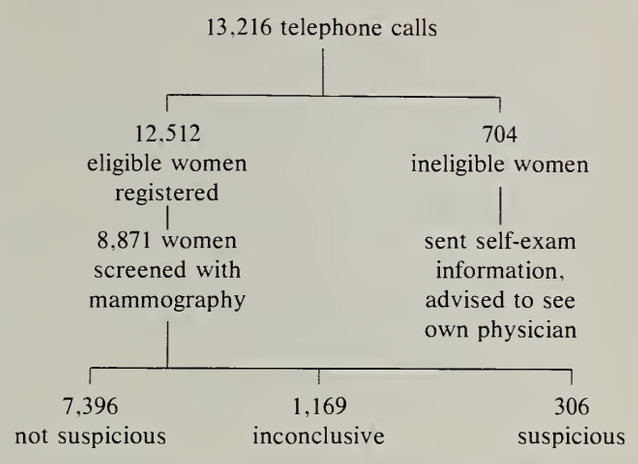
The patients who had mammograms completed a form which contained information about prior screening history, family history, history of breast problems and the name of the primary physician. A copy of this form and a copy of the radiologist's report form which indicated if the mammogram were suspicious for malignancy, inconclusive or not suspicious, were sent to the ACS headquarters.

A computer program was developed to incorporate the information from the request form, the radiologist's report, and the followup information on each patient. Followup information has been requested from the patients as well, and collection of this information if underway.

Table 3. Findings in 2,611 Women Who Participated in Screening Program.

Pathology		
Lobular carcinoma in situ		5
Intraductal carcinoma		7
Infiltrating ductal carcinoma		21
Infiltrating lobular carcinoma		2
Unspecified malignancy		7
	Total	42
Breast Examination Histories		
Regular self-examinations		48%
Examined by doctor in 1980		53%
1981		52%
1982		54%
1983		57%
1984		54%
Mammogram Histories		
Had previous mammogram		22%
Date:	1980	2%
	1981	2%
	1982	3%
	1983	5%
	1984	5%
No previous mammogram		78%
Reasons: Doctor didn't recommend		66%
Didn't know about mammograms		16%
Cost		12%
Fear of radiation		1%
Other		5%

Table 2. Participation in the Screening Program.



Results

A total of 13,216 women called the toll-free number and expressed interest in the program (Table 2). Of these, 12,512 women were eligible and were registered and 704 were ineligible. Of the women who were eligible, 8,871 (71%) were screened. The mammographic reports were classified into three groups: not suspicious (7,396), inconclusive for malignancy and requiring either followup or biopsy (1,169), and suspicious for malignancy (306). The followup information on the suspicious category and a majority of the inconclusive mammograms has been collected and computerized. The followup of the not suspicious group is underway.

Of the 306 patients who had mammograms classified as suspicious, 214 (70%) have had biopsies, and 30 (14%) were malignant. An additional 12 cancers have been found in the inconclusive group to date. Forty women with suspicous mammograms have been followed by their physicians and have not been biopsied; 37 women had second mammograms which were considered to be less suspicious, and they are being followed. In 15 patients, the followup data is incomplete.

The pathologic findings in the 42 patients with cancers diagnosed are shown in Table 3. In looking into the screening history of these 42 women, 55% of the patients performed regular breast self examination, 81% had seen a primary physician but only 10% had had a mammogram in the last previous three years. Of these patients 27% were considered at high risk because of a family history of breast cancer in the mother or sister, yet only four of these (36%) had had previous mammography.

An evaluation of the screening history of 2,611 of the women who participated in the project was conducted. This group of women included all of those with suspicious or inconclusive mammograms and 1,134 of those with mammograms which were not suspicious for malignancy. The age range for women participating in the program was from 24 to 92 years, with the mean

age being 51 years. The racial distribution was 94% white, 5% black and 1% other. An inquiry into how the patients learned about the program showed that 47% read about it in the newspaper, with television and radio coverage accounting for 10% and 11% of the referrals respectively. Other sources of information included the primary physician, notices and bulletins at places of work, through clubs, in hospitals, in stores and through ACS volunteers.

When asked about breast examinations (Table 3) 48% of the participants said that they performed regular breast self-examination and 54% had had their breasts examined by a physician at least once in the previous three years. However, only 22% had ever had a mammogram and only 5% had had a mammogram in the previous three years. The reason given for not having mammography in the past, in the majority of cases (66%) was that the patient's physician had not recommended it.

Discussion

The Virginia Division ACS mammography screening program has been considered to be successful in that it accomplished the proposed goals. Nearly 13,000 women, most of whom had never had a mammogram, were reached with the information about early detection of breast cancer, and nearly 9,000 participated in the program. This was the first pilot progam for the National American Cancer Society Breast Cancer Awareness Campaign conducted on a statewide level. There was a tremendous response to and interest in the program: by the women who called in and participated, by the radiologists and technologists who interpreted and performed the mammograms, by the primary care physicians who agreed to see the patients and who are providing much of the followup information, by the volunteers who answered the toll-free number and who assisted with registration and in teaching breast self-examination at the facilities, and by the media.

The impact of the program continues, as women still call ACS headquarters daily with inquiries about mammography. The results have shown that the vast majority of the patients, including those who were found to have nonpalpable cancers by mammography, had never had a mammogram. The primary reason cited for not having a mammogram was lack of physician referral. Similar findings about referral patterns for screening mammography have been found in other studies.[11,12] This emphasizes the importance of continuing efforts in professional education to increase mammography utilization. The direct effect of this program on physician referrals for screening is yet to be assessed.

The effect on public education can be indirectly assessed by noting that more than 13,000 women called with inquiries about the program, that 9,000 women were screened, and that the vast majority of these women had never had mammograms. Forty-two cancers were found and the collection of followup information continues. Continued media coverage of various aspects of the program and the ongoing results has also been important in extending the public education value.

Particularly in the area of third-party reimbursement for screening mammography, the cost issue must be addressed if the procedure is to be made available to large numbers of women. The $40 fee for mammography in this program emphasized the importance of reducing cost, and there are now trends by facilities statewide toward a reduction in fees for mammography.

Other advantages of the program include the incorporation of a well-organized quality assurance program through which a standard state-of-the-art quality of mammography was performed. The quality assurance program had some effect in teaching also, in that the committee members were available to provide suggestions for improvements to facilities having difficulties with mammographic techniques. As a result of the program either directly or indirectly, at least 14 new mammographic units have been installed statewide.

Unlike a program carried out earlier in Illinois, the referral of patients to their primary care physicians afterward for after-care and followup served an important clinical role in combining breast exams with mammography. Also, this may have some role in professional education in terms of encouraging more referrals for screening mammography.

The followup of the patients both short-term and long-term is a time-consuming process. The incorporation of a computer program developed by volunteers on the task force has facilitated and will continue to facilitate this process immensely.

Improvements in the program and in planning future programs include several aspects of the planning and implementation phases. The program received the support of The Medical Society of Virginia and the American College of Radiology; however, better communication with radiologists and primary care physicians prior to and during the screening would have been helpful. Also, the composition of the task force might include a greater number of diagnostic radiologists, particularly when a project involving radiology to such a degree as this is concerned. More phones and volunters should have been operational during the call-in period, or later hours should have been made available to facilitate more callers. In terms of the followup, computer programming for data collection should be planned prior to the screening to facilitate faster collection of information. Along with this, a copy of the patient's consent form to release information should be kept not only with the facility but at the ACS office to accompany followup letters to the physicians.

This pilot program has served as a useful tool for public and professional education about the role of

mammography in the detection of early breast cancer. There is still a wealth of information to be gathered from the patients and physicians who participated, and this will serve as the source of future reports.

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Diagnostic Strategies for Palpable and Nonpalpable Lesions of the Breast

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PALPABLE and nonpalpable abnormalities of the breast require investigation which will lead to a diagnosis of the cause of the problem. Steps necessary to establish a diagnosis will vary according to age of patient and character of the lesion.

Palpable Lesions

In a young individual with a well defined, clinically benign breast mass, aspiration with a 20-21 gauge needle under local anesthesia is appropriate. If nonbloody fluid is obtained and the area disappers, no further treatment is necessary. Bloody fluid is sent for cytological examination, and further examination, with possible biopsy, may be indicated. If no fluid is obtained, a fibroadenoma is the most likely diagnosis, and although urgent treatment may not be necessary, it is our recommendation that these lesions be removed at a reasonably convenient time, eliminating the continued concern caused by a breast mass. This can be carried out under local anesthesia.

A mammogram is seldom of help in the young individual with a clinically benign lesion. The breast tissue is dense, and identification of early changes of malignancy are rare. A sonogram may define the character of the lesion where doubt exists. It is safe and relatively inexpensive.

Indistinct nodular thickening in the breast of a young female is a frequent and nonpathologic occurrence. It is mainly a thickening of the nonductal structures of the breast, is rarely cystic and usually fluctuates with menstrual cycles. It is not a disease. Observation through a cycle is appropriate unless there is a high risk for a more serious condition.

A mammogram should be obtained on a woman with a palpable abnormality of the breast if she is over the age of 30 or below that age with a suspicious area in the breast or a very high-risk family history. A mam-

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mogram not only characterizes the obvious abnormality but also allows evaluation of the remainder of the breast tissue. Regardless of the mammographic findings, a palpable abnormality requires a definitive diagnosis. In the case of an abnormal mammogram with a palpable abnormality, the surgeon must determine whether they are the same or separate areas.

It is preferable to obtain a mammogram before performing an aspiration or biopsy of the mass. This will avoid distortion of the tissue and confusion in interpretation of the mammogram.

Fine-needle aspiration of a mass is the procedure of choice if competent cytological services are available.[1] A positive diagnosis of malignancy then allows planning of definitive treatment. A negative or equivocal cytologic diagnosis in the face of a palpable mass requires an open biopsy for pathologic evaluation.

If cytologic services are not available, a biopsy of the lesion is indicated. An excisional biopsy is preferable unless the lesion is extensive, in which case an incisional biopsy may be the appropriate procedure. Fresh tissue should be sent promptly to the pathologist for evaluation and receptor studies if indicated. Local anesthesia is utilized in the majority of cases.

The incision to be used for removal of a mass should be carefully planned. In a young individual with a benign-appearing lesion, a circumareolar incision may be used to give the best cosmetic result. If cancer is a definite possibility, the incision should be made over the tumor. Tunneling from a circumareolar incision to a distant area of the breast can result in contamination of the entire breast in the case of malignancy and may compromise the ability to treat the patient conservatively. In general, curvilinear incisions are made in the upper half of the breast and occasionally the lower half. Maintenance of the subcutaneous fatty tissue will prevent distortion associated with a curvilinear incision in the lower half of the breast. A radial incision is used frequently in the mid-medial and lateral aspect of the breast and is quite adequate in the lower half. Suspicion of malignancy requires careful planning of the incision and execution of biopsy.[2] If a mastectomy is a likely method of treatment, the biopsy incision should be made in such a manner that it can be incorporated readily within the mastectomy incision. In case the patient is a candidate for lumpectomy with axillary dissection and radiation, exicision of a margin of normal tissue around the mass is important. The specimen is oriented for the patholgist, who should ink the margins of the specimen and examine at that time for completeness of resection. Such an examination may eliminate the necessity for reexcision at a later date. Positive fine needle aspiration cytology will greatly facilitate this planning.

Nonpalable Lesions

Since the work of Egan in 1960,[3] mammograms of the breast have increased in frequency and represent the desired method for screening for breast cancer. Studies have shown an increased survival for those cancers detected by mammographic screening. In the Breast Cancer Detection Demonstration Project, 41% of the breast cancers were detected by mammography alone.[4] Mammographic abnormalities requiring biopsy are microcalcifications in a cluster or a linear configuration, a mass which is new, dense, or spiculated, and occasionally an asymmetric density.[5] Removal of suspicious nonpalpable areas in the breast requires specific localization to assure removal of the abnormal area with minimal sacrifice of normal breast tissue. Techniques for localization such as triangulation, dye injection along a needle tract, needle placement and hook-wire placement after needle localization have been utilized. We prefer the hook-wire localization after needle direction with local anesthesia. It gives precise identification of the abnormal area. It is stable and allows removal of a small area of breast tissue. Specimen mammography should be performed on all specimens with calcifications and frequently on masses or densities to assure removal of the suspicious area. Retention of the wire in the specimen not only aids in specimen mammography but is a useful guide for the pathologist in selecting the proper area for microscopic examination.

Summary

The diagnosis of an abnormality of the breast, whether palpable or nonpalpable, requires a systematic approach. Aspiration of a cyst for the evacuation of fluid is advisable and aspiration of a solid mass for cytologic examination is recommended if such a service is available. Mammographic evaluation of the breast is recommended. A palpable mass requires a tissue diagnosis regardless of the mammographic findings. A negative cytological examination also requires a tissue diagnosis. Localization of nonpalpable abnormalities utilizing the hook-wire allows biopsy under local anesthesia with accuracy and minimal sacrifice of breast tissue.

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Current Choices in Treatment of Primary Breast Cancer

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THE objectives of the treatment of breast cancer are complete control of disease, staging of the axillary lymph nodes, prevention of local regional recurrences, and reduction of the tumor burden to enable adjuvant systemic therapy, cytotoxic chemotherapy or hormonal, to be more effective. Consideration is given to the cosmetic and functional result of the treatment, which is of great importance to the patient's quality of life.

The most important prognostic factor in breast cancer is the status of the axillary nodes. Clinical staging by physical examination is notoriously inaccurate. In the National Surgical Adjuvant Breast Project (NSABP),[1] there was a 39% incidence of false-negative and 24% false-positive examinations. This means that the careful palpation of the axilla is inadequate to determine the presence or absence of metastases, and the true status can only be determined by microscopic examination of the lymph nodes.

Breast cancer is typically a multicentric disease. Sites of both noninvasive (in situ) and invasive cancer are found in other quadrants of the breast in 30%-70% of patients. The variations in reported incidences of multicentricity can be explained by differences in criteria, sampling method and case material among the several studies.[2]

Although modified radical mastectomy is the most commonly utilized therapy for treatment of primary breast cancer in the United States,[3] there has been increasing support over the past several years for the use of breast-conserving surgery combined with radiation therapy in selected patients. This is based on published reports of both retrospective studies[4,5] and, more recently, prospective, randomized clinical trials.[6,7]

The concept of breast-conserving surgery involves removal of the primary cancer in the breast and an axillary dissection to determine the histologic status of the nodes. Since subclinical breast cancer is highly likely to be present in the remaining breast tissue, radiation therapy is employed to improve local tumor control. Widely differing techniques have been reported on the use of conservative surgery and radiation therapy. Several years ago a special workshop was held on this subject.[8]

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Surgical Therapy

In this article we are concerned with the patient who has clinical stage I or II breast cancer. The two options of local treatment which offer the best chance of cure are modified radical mastectomy or local resection with microscopically clear margins, axillary node dissection, and radiation therapy to the remaining breast tissue. When we use the term "modified radical mastectomy," we mean complete removal of all breast tissue, sparing the pectoralis major muscle, and an axillary node dissection. The dissection of the axillary contents should extend from the tail of the breast inferiorly, the latissimus dorsi muscle laterally, the axillary vein superiorly, and removal of the tissue beneath the pectoralis minor muscle up to its medial border (level I and II dissection). Ideally, we do a full axillary dissection to include level III between the medial border of the pectoralis minor and the costoclavicular (Halsted's) ligament. This can be accomplished by removing, dividing or, in many patients, retracting the pectoralis muscle with the fully mobilized shoulder. If the pectoralis minor muscle must be divided, we recommend dividing it from its origin from the third, fourth and fifth ribs and retracting it, thereby preserving an intact neurovascular bundle.[9] The lateral pectoral nerve (formerly known as the medial anterior thoracic nerve) is intimately involved with the pectoralis minor muscle and is sacrificed when it is removed.[10]

The vast majority of our modified radical mastectomies are performed with transverse elliptical incisions, which give adequate margins, excellent exposure and a good functional and cosmetic result. Rarely is a split-thickness skin graft needed, but the surgeon should always be prepared should the necessity arise to get primary healing of the wound.

As soon as the mastectomy has been completed, an adequate sample of the primary cancer should be removed and sent for estrogen and progesterone receptor protein determinations. All patients should be aware of the possibility of immediate or subsequent reconstruction and consultation arranged with a plastic surgeon if this is desired.

When we speak of local resection we mean complete removal of the tumor with microscopic-free margins. This has been called a segmental resection, lumpectomy, and tylectomy. This necessitates a thorough evaluation of the specimen by the pathologist. The surgeon should orient the resected specimen with sutures and send it to the pathologist intact. The exterior surface should then be inked to facilitate the

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assessment of the margins of the resection for tumor involvement under the microscope. A sample of tissue should be obtained for measurement of estrogen and progesterone receptor proteins.

Usually a gross margin of several centimeters is adequate to assume a microscopic-free border about the tumor. If margins are positive for tumor, further resection to obtain a free margin should be done. If this is not feasible without causing a major cosmetic deformity or subsequent resection has positive margins, the likelihood of local control by radiation therapy is uncertain. We therefore recommend total mastectomy in this situation.

The incision for the tumor in the breast and the incision for the axillary dissection should be separate in most cases since this gives the best cosmetic result. The only exception might be when the tumor is located in or near the tail of the breast and a single incision is preferable because of the proximity of the two areas. The incision should be placed directly over the primary tumor to minimize the area of possible contamination by malignant cells and to indicate clearly to the radiotherapist the original site of the tumor. A circumareolar incision for a peripherally located cancer of the breast should not be performed. When the tumor is in the upper half of the breast, a curvilinear incision gives the best cosmetic result, while a radial incision is preferred in the lower half. Meticulous hemostasis should be obtained and no attempt made to reapproximate breast tissue or drain the wound since distortion and a poor cosmetic result might occur.

Axillary dissection is performed in the same manner as described for the modified radical mastectomy. The status of the axillary nodes is the most important prognostic factor in the decision for adjuvant therapy, cytotoxic chemotherapy or hormonal. A proper dissection, level I and II as a minimum, obviates the need for radiation therapy to the axilla. Even with axillary node metastases recurrence in the axilla is rare.[11] Radiation therapy to the fully dissected axilla substantially increases the likelihood of lymphedema of the arm.[12]

The objectives of axillary dissection are 1) identify presence or absence of axillary node metastases; 2) provide local tumor control; 3) avoid compromising subsequent radiation therapy; and 4) avoiding major risk of complications or cosmetic deformity.[8] An "axillary sampling," a limited dissection of level I, is not adequate. A full or at least a level I and II dissection best achieves the objectives.[13]

The optimal incision for the axillary dissection is horizontal in the lower part of the axilla along the skin lines extending from the posterior border of the pectoralis major muscle of the anterior border of the latissimus dorsi muscle. This gives satisfactory exposure with a good functional and cosmetic result. Alternatively, a vertical incision in the anterior part of the axilla just posterior to the lateral border of the pectora-

lis major muscle can also be utilized. A vertical incision in the mid portion of the axilla should be avoided because it frequently leads to a "bowstringing" effect which is both functionally and cosmetically undesirable. The thoracodorsal and long thoracic nerves innervating the latissimus dorsi and serratus anterior muscles respectively should be preserved. With some extra attention, particularly in the axilla with no clinical evidence of node metastases, the intercostobrachial nerve can be preserved. This is the sensory innervation of the skin of the upper medial arm. Preservation will avoid some unpleasant postoperative dysesthesias and paresthesias.[14]

Radiation Therapy

Radiation therapy is an integral part of the therapeutic program when local resection and axillary node dissection is the choice of treatment of primary breast cancer. It is designed to give local control to the multicentric foci of cancer in the remaining breast tissue. The radiation oncologist should participate with the surgeon in the initial decision of treatment selected for a particular patient. Some breasts are better suited for this type of therapy than others, and the patient should be fully informed of what is involved with radiation therapy.

The entire breast is usually treated with 180 to 200 rads per day for a total dose of 4500 to 5000 rads. This is an effective dose for local control as demonstrated in the National Surgical Adjuvant Breast Project B-06 clinical trial. Those patients treated by local excision (segmental resection) plus axillary node dissection and 5000 rads to the remaining breast tissue had a local recurrence rate of 8% at five years while the group treated similarly but without radiation had a 28% recurrence. However, the five-year survival was the same for both groups when the local recurrence was treated by total mastectomy. An important point to remember is that recurrence in the breast after local excision with or without radiation therapy is frequently salvageable, while local recurrence at the mastectomy site is almost always a sign of systemic disease.

There is controversy regarding the need for a "boost" (supplementary radiation) to the primary site. Most series have utilized this technique. It does appear that those patients treated by local excision with free margins or wide excisions, such as a quadrantectomy, do not need additional local radiation. However, a boost would seem to be desirable when the margins are involved, are close or are not available.

The other consideration facing the radiation oncologist is the regional nodes. If an adequate axillary node dissection has been performed, there is no indication for radiation therapy; in fact, it is contraindicated since it definitely increases the chance of lymphedema of the arm.[12] The principal area of controversy relates to treatment of the supraclavicular and internal mammary nodes in patients with axillary node metastases

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or centrally or medially located primary cancers. Available data, however, does not show any improvement in survival.[15,16]

Selection of Treatment

The principal criterion for selection of a patient for a breast-conserving procedure is the feasibility of adequate resection of the primary cancer without major cosmetic deformity. Patients with widely separated cancers in the same breast confirmed either clinically or by mammogram are poor candidates and would be better treated by mastectomy. High-quality mammography is extremely important, both for the identification of other possible cancers in either breast and better delineation of the extent of the palpable primary cancer. The patient who has scattered clusters of microcalcifications in other quadrants is not a suitable candidate for local excision. These findings not only increase the likelihood of inadequate margins but make it difficult for accurate followup of these patients.

The location of the primary cancer is another consideration. The principal controversy is the cancer located directly under the nipple-areolar complex. Even though an adequate local excision would involve removal of the nipple-areolar complex, the result is satisfactory if tumor-free margins are obtained. The patient is left with a satisfactory breast mound and, following completion of radiation therapy, can have a nipple-areolar reconstruction if desired.

Other factors may be relative contraindications for breast-conserving treatment and these should be considered jointly by the surgeon and radiation oncologist before recommendation for treatment is made. Treatment by radiation can be more difficult in patients who are older, have very large or pendulous breasts, or have a primary cancer greater than 4 cm. It is unlikely patients with small breasts can achieve a satisfactory cosmetic result by combined surgery and radiation therapy.

Conclusion

There are two clear choices for the treatment of primary breast cancer in most patients. We are confident we will see more patients treated with breast-conserving procedures in the future. With more public education and screening by physical examination and mammography, "earlier," smaller lesions will be detected; these are frequently ideal candidates for breast conservation. Best results require close consultation between the surgeon, radiologist, surgical pathologist and radiation oncologist. Careful attention to details is necessary to make the proper recommendation to the patient and get the best result. Once the therapeutic decision has been made, it is the surgeon's responsibility to present the options clearly to the patient so that she understands the choices.

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Adjuvant Therapy of Breast Cancer

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CANCER of the breast remains the most common solid tumor in women. In an effort to reduce the number of deaths from carcinoma of the breast, emphasis on earlier diagnosis has brought about detection of many breast cancers when still occult, as described elsewhere in this issue. Nevertheless, many cancers are advanced when discovered and may have developed subclinical metastatic disease. In an effort to increase the chance of cure for these patients, systemic therapy has been added to loco-regional treatment to try to eradicate occult distant metastases. This article describes the current status of sytemic adjuvant therapy for breast cancer.

Because breast cancer is a heterogeneous disease, comparison of treatment modalities is difficult outside of randomized, prospective trials. In order to properly assign patients in such trials, knowledge of factors affecting prognosis is necessary. The major factors affecting prognosis are clinical stage of the tumor, lymph node status, and steroid receptor (i.e., estrogen and progesterone receptor) status.

Clinical stage has long been known to predict prognosis (Table 1). Not surprisingly, patients with small cancers have a better prognosis than patients with large cancers or those with clinically involved lymph nodes (Table 2). Furthermore, studies performed by the National Surgical Adjuvant Breast Project (NSABP) have shown that about 40% of patients with clinically negative axillae will have histologic evidence of axillary node metastases; conversely, about 30% of patients with enlarged axillary nodes do not have metastases when the lymph nodes are examined histologically. This emphasizes the need for histologic examination of the axillary lymph nodes to adequately stage the patient pathologically and to help determine the need for additional therapy.

Not just the presence or absence of metastases for axillary lymph nodes but the number of nodes involved with cancer is an important prognostic variable. Multiple studies have shown that the larger the number of involved nodes, the worse the patients' prognosis (Table 3). Thus, careful examination of the nodes is a necessity for patients with breast cancer.

The other major prognostic factor for patients with breast cancer is the steroid receptor status of the tumor. Receptors are cytoplasmic glycoproteins, the presence of which is required for the hormone to exert an action on the cell. About 60% of breast cancers contain specific receptors for estrogen; this value is somewhat less in premenopausal patients than in postmenopausal patients. Estrogen receptor has been shown to be an independent prognostic variable; patients whose tumors are estrogen receptor positive have a better disease-free and overall survival than those whose tumors do not contain estrogen receptor.[2] Progesterone receptor has more recently been shown to also be an independent prognostic variable; it may, because it appears to be the protein produced as the end-product of estrogen action, be even a more important prognostic variable than estrogen receptor but confirmation of this is awaited.[3]

It is apparent from these and other factors associated with breast cancer that patients with a poor prognosis, such as those with lymph node metastases and/or those whose tumors are estrogen and progesterone receptor negative, should be considered candidates for additional therapy.

Early trials of hormonal therapy were performed prior to knowledge of steroid hormone receptors and, therefore, results of these trials must be interpreted

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cautiously. The oldest, and one of the largest, trials randomly assigned pre- and peri-menopausal women with carcinoma of the breast to receive no further treatment or to receive radiotherapy to the ovaries. A disease-free survival advantage and an overall survival advantage were seen among patients whose ovaries were irradiated, but these differences did not quite reach statistical significance.[4] A trial from Canada demonstrated that patients who underwent prophylactic surgical oophorectomy had an advantage in terms of both disease-free and overall survival when followed for ten years after initial treatment; the survival curves remained similar until almost five years after treatment but diverged thereafter.[5]

More recent trials of adjuvant hormone manipulation have primarily used the antiestrogen tamoxifen. Several randomized trials have now been reported. A cooperative trial from the British Isles and New Zealand randomly assigned 1,285 patients under 75 to be observed only or to receive tamoxifen (10 mg twice a day for two years). Although only 525 specimens were assayed for ER content, patients receiving tamoxifen had a lower incidence of treatment failure than patients who were observed at 21 and 30 months.[6] Patients with high ER values appeared to have a lower failure rate when treated with tamoxifen in a similar trial.[7] Among 1,650 patients, only 291 had ER assays. Although recurrence-free survival was not different among patients receiving tamoxifen compared with controls, those who had ER values >100 fmol/mg cytosol protein had a markedly increased recurrence-free survival when receiving tamoxifen. The International Adjuvant Trial Organization has reported preliminary results of a trial comparing controls to those receiving tamoxifen; cyclophosphamide, methotrexate, and 5-fluorouracil (CMF); or CMF plus tamoxifen.[8] With a median followup of two years, patients receiving either tamoxifen, tamoxifen with CMF, or CMF alone had improved overall and disease-free survival when compared with controls. Neither disease-free nor overall survival were different in the chemotherapy group when compared with the group receiving tamoxifen alone, and the morbidity of tamoxifen treatment was minimal.

Using these and other data, the NIH Consensus Development Conference on Adjuvant Chemotherapy for Breast Cancer, held in September 1985, concluded that postmenopausal women with breast cancer with histologically positive lymph nodes and whose tumors are estogen receptor positive should receive tamoxifen.[9] The length of treatment has not yet been determined, but the data suggest at least two years of treatment are beneficial and longer treatment periods may be necessary.[10,11] Interestingly, premenopausal women, even those whose tumors are estrogen receptor positive, do not appear to benefit from adjuvant tamoxifen.

Although **adjuvant chemotherapy** had been utilized for several years, usually in short-term, single agent trials, the modern era of adjuvant chemotherapy for breast cancer began in the early 1970s with trials from the National Cancer Institute of Milan [12] and the NSABP [13]. Several principles for the use of adjuvant chemotherapy have been proposed by Bonadonna and remain accepted standards:

1. The primary neoplasm and the regional nodes should be surgically removed

Table 1. Definitions of T (primary tumor), N (regional lymph nodes), and M (distant metastasis) for Carcinoma of the Breast.

T_1	a. no fixation b. fixation to underlying fascia or muscle	Tumor >2 cm
T_2	a. no fixation b. fixation to underlying fascia or muscle	Tumor 2-5 cm
T_3	a. no fixation b. fixation to underlying fascia or muscle	Tumor >5 cm
T_4	a. fixation to chest wall b. edema, ulceration, or satellite nodules c. both of the above	Tumor extension to chest wall or skin
N_0		No palpable nodes
N_1	a. not considered to contain metastases b. considered to contain metastases	Movable nodes
N_2		Nodes fixed to one another or other structures
N_3		Supraclavicular or infraclavicular nodes
M_0		No evidence of distant metastasis
M_1		Distant metastasis

From the American Joint Committee for Cancer Staging and end results reporting.

Table 2. Survival According to Clinical Stage.

	5-year survival
Stage 1 (T_1 N_0)	85%
Stage 2 ($T_{1,2}$ $N_{0,1}$) (T_2 N_0 or N_1; N_{1_b})	66%
Stage 3 (T_3, T_4, Any N; N_2 or N_3)	41%
Stage 4 (any T, any N, M_1)	10%

From the American Joint Committee for Cancer Staging and end results reporting.

Table 3. Correlation of Lymph Node Status with Relapse-Free Survival After Definitive Local Treatment.[1]

No. of Nodes with Metastases	Relapse-Free Survival (%) 5 years	10 years
0	82	76
1-3	50	35
≥4	21	14

2. Chemotherapy should be started as soon as possible after surgery.

3. Chemotherapy should include cell cycle specific drugs; the drugs utilized should have different mechanisms of action.

4. Chemotherapy should be administered with an intermittent high-dose schedule to maximize tumor damage and minimize host immune incompetence.

5. The regimen should be safe, tolerable, and simple enough to be administered on an outpatient basis.

During the past 15 years numerous trials, many of them randomized and prospective, have investigated single agent and combination chemotherapy administered following local therapy for patients with histologically positive lymph nodes. Many of the trials are difficult to compare to each other due to different patient populations; for example, some trials have a preponderance of pre- or post-menopausal patients, histologically positive nodes (vs. clinically and histologically positive nodes), different mixes of estrogen/progesterone receptor positivity, and differing eligibility criteria. Thus, differences between trials may be more apparent than real.

The initial modern era trials, using single-agent phenylalanine mustard (L-PAM) for two years (NSABP) or CMF for one year (Milan) both demonstrated statistically significant improvements in both disease-free and overall survival up to ten years following initial surgery, but these advantages were modest and were confined to premenopausal women. CMF administered for 6 months was later shown to be as effective as the original 12 months duration.[12] Numerous other trials conducted over the past 15 years have confirmed these results, although a few trials have shown some benefit in postmenopausal patients.

The NIH Consensus Development Conference on Adjuvant Chemotherapy for Breast Cancer concluded that adjuvant cytotoxic chemotherapy was not indicated in postmenopausal women (outside of the confines of a clinical trial). Other data, however, suggest that chemotherapy may be of some benefit in this patient population, although not as great as in premenopausal women. Peto (at the same conference) pooled the data from adjuvant therapy trials (about 15,000 women) and showed a significant reduction in the death rate for both pre- and post-menopausal women; this reduction in death rate was larger for women who received CMF than for those receiving other chemotherapy but was still more for premenopausal than for postmenopausal women. Although these data demonstrated statistical significance, the advantage was small. The reduction in the odds of death for women under 50 was estimated to be 24 ± 5%, but for women over 50 the reduction in risk was estimated as only 8 ± 4%. More recent data, especially that presented at the Fifth International Conference on the Adjuvant Therapy of Cancer (1987), also suggest that postmenopausal patients do benefit from adjuvant chemotherapy, although the improvement was less than in premenopausal patients. Current trials are investigating the value of more intensive chemotherapy regimens, especially with the drug adriamycin. Results of these trials are eagerly anticipated.

Patients who had histologically negative lymph nodes were not included in the previously discussed chemotherapy trials, but as increasing evidence accumulated that chemotherapy was beneficial in prolonging both disease-free and overall survival for women with positive lymph nodes, trials were designed for women with negative nodes. Several reports have shown that women with estrogen receptor positive tumors have a much better prognosis than women with estrogen receptor negative tumors, and, therefore, adjuvant therapy protocols have been stratified according to receptor status. The NIH consensus conference concluded that adjuvant chemotherapy was not indicated in patients without axillary lymph node metastases, but data presented at the 1987 Adjuvant Therapy Conference suggested that patients with node negative, estrogen receptor negative tumors may have an improved disease-free and overall survival when receiving chemotherapy than do concomitantly treated controls. Further followup will be necessary before adjuvant chemotherapy can be advocated for routine use in these patients. Conclusive data concerning node negative, estrogen receptor positive patients is not yet available.

Chemohormonal therapy has been investigated in several studies. The NSABP has used the combination of tamoxifen plus L-PAM plus 5-fluorouracil compared with L-PAM and 5-fluorouracil.[14,15] For postmenopausal ER positive patients, recurrences were significantly reduced for patients receiving tamoxifen plus chemotherapy compared with those receiving chemotherapy alone. The higher the ER value, the greater the difference in disease-free survival. Among patients younger than 50, survival was not significantly improved even among the ER positive patients.

Another randomized trial randomly assigned patients to combination chemotherapy of CMF ± tamoxifen; a third group received BCG.[16] For patients with ER positive tumors, the addition of tamoxifen decreased recurrence rates compared with those receiving chemotherapy alone, but this difference was only marginal. For those with ER negative tumors, the three regimens appeared similar for both premenopausal and postmenopausal groups.

Other trials have also been performed, but most trials have failed to demonstrate an advantage when adding chemotherapy to hormonal therapy when compared to hormonal therapy alone for estrogen receptor positive patients.[17]

Toxicity of adjuvant chemotherapy should be an unusual phenomenon because, as described previously, any regimen used in this setting should be safe and tolerable. Nevertheless, some morbidity does occur

and the exact type is relative to the drugs administered and their doses. Nausea and some vomiting is not uncommon but does not preclude normal nutrition as many patients actually gain weight while receiving chemotherapy. Alopecia is uncommon unless an adriamycin-containing regimen is administered. Bone marrow suppression is dose-related and significant thrombocytopenia or granulocytopenia is rare. Other uncommon complications include venous thrombosis [18] or severe infections. Second neoplasms are of potential concern but do not seem to be present in a higher incidence than in breast cancer patients not receiving chemotherapy.[19] Thus, although the disadvantages caused by chemotherapy are of concern and there is the possibility that with increasing followup time more long-term problems may arise, they do not appear to outweigh the advantages (in terms of increased disease-free and overall survival) provided by chemotherapy.

Conclusions

Adjuvant therapy of breast cancer is a rapidly changing field wherein conclusions seem to change from year to year. Several generalizations seem appropriate at this time:

1. Node positive patients appear to benefit from additional therapy; postmenopausal, node positive, estrogen receptor positive patients may benefit as much from endocrine (tamoxifen) therapy as from chemohormonotherapy, but premenopausal, node positive patients should receive chemotherapy alone, even if their tumors are estrogen receptor positive.

2. Node negative, estrogen receptor negative patients may benefit from adjuvant chemotherapy, but additonal trials and longer followup are necessary before this can be considered established therapy.

3. Node negative, estrogen receptor positive patients have a good prognosis; whether additional therapy will provide benefit remains to be seen.

4. When possible, all women with breast cancer should be admitted to clinical trials as the optimum treatments(s) has not yet been delineated. Although adjuvant therapy has been shown beneficial in some subgroups, the advantages remain small and a great deal of progress remains to be made.

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VIRGINIA MEDICAL EDITORIAL

"Hidden" Cancer

This issue of Virginia Medical is devoted primarily to the subject of breast cancer. Drs. Walter Lawrence and Gerald Goldstein have assembled interesting and informative articles on this important subject.

It may not be amiss to comment on another aspect of the cancer problem—"hidden" cancer. In a recent study illustrating the value of autopsy (necropsy) in providing valuable clues to occurrence rates for specific diseases, McFarlane and colleagues (JAMA 1987;258:331) provide new information as regards the incidence of unsuspected lung cancer. Necropsies were performed on 2,996 patients, aged 20 years and over; 110 of these had been diagnosed or suspected of having lung cancer. Among the remaining 2,886 patients, lung cancer was found in 49. Twenty-three of these had had a wrong cancer-site diagnosis during life, and in 26 patients, the discovery of cancer was a surprise.

The cancer problem continues and early diagnosis is often elusive.

E. L. K., Jr.

AIDS: Politics and Pussyfooting

The House of Delegates of the American Medical Association considered the AIDS problem at great length at its recent meeting in Chicago. Although mandatory testing was recommended only for certain cases—blood and organ donors, tissue and semen collections, immigrants, and federal prisoners, the House also recommended widespread voluntary testing.

It seems strange that what should be a clear-cut medical and public health problem should have become such a political issue. At no time in American medical history has there ever been any doubt as who should deal responsibly with diseases and conditions regarding the public health. Until recently all patients admitted to hospitals were required to take a test for syphilis and all states required premarital testing for veneral diseases. We all remember when individuals afflicted with tuberculosis were confined for years to sanitoria, and no questions of privacy or civil rights were raised. Victims of Hansen's disease were isolated at Carville, and the house where a patient with an infectious disease lived was quarantined by order of the public health officer. "Typhoid Mary" was identified and kept away from food preparation for "the public good."

Now we are faced with a universally fatal disease, and yet we are pussyfooting around when it comes to detection and control. The credibility of the medical community has become suspect, since each day we are becoming aware of cases which apparently have occurred by means which only a few months ago had been declared to be impossible. Health care workers have become infected by

spilled blood and body fluids without having been stuck with an infected needle. A dentist has acquired AIDS in the course of an ordinary practice. Health care workers and physicians are understandably worried about their own safety; an appalling recent survey showed that up to 50% of young physicians and nurses would be willing to refuse treating AIDS patients.

American medicine must be at the leading edge of the fight against this terrible scourge. We must be able to provide a safe working environment for our physicians and other health care workers, as well as assuring our patients that they are being treated in a safe facility.

We must rekindle the spirit of our medical forebears and assure that all of us will treat all sick people, regardless of their disease. However, none of us should be "blind-sided" in the course of performing our duties. Rather than testing only individuals from so-called "high-risk" groups and in "high-risk" areas, we should adopt a totally nondiscriminatory policy of testing all patients admitted to health care facilities, and we should be privileged to use our medical judgements in testing our office patients.

Care must be taken that all positive screening tests are confirmed with a Western blot or similar test, and patients with the disease must be considerately counseled.

But above all we must protect our communities from this terrible disease, and ultimately the greatest good for the greatest number must prevail.

W. Leonard Weyl, MD

Making It Official: The U.S. Surgeon General, Dr. C. Everett Koop, is shown at right receiving a copy of the *AIDS Manual for Virginia Physicians* published by The Medical Society of Virginia in conjunction with the Virginia Department of Health. Making the presentation in Dr. Koop's office are Dr. Richard L. Fields, MSV President (center), and Dr. Donald M. Poretz, chairman of the Society's AIDS Committee. A copy of Dr. Koops' official report on AIDS was incorporated in the manual, which was furnished free of charge to all physicians in Virginia. Its notebook style was designed to accommodate future mailings of the committee to keep Virginia physicians abreast of developments in AIDS detection, control and treatment.

ABSTRACTS

These are abstracts of papers presented at the scientific session of the Virginia Dermatological Society on November 9, 1986, in Williamsburg. Dr. James W. Patterson was program chairman.

Cutaneous B Cell Lymphoma. Beth Whitmore, MD, *Charlottesville.*

A 54-year-old black male presented with a long history of seizure disorder treated with phenytoin, phenobarbitol and carbamazepine, and a two-year history of enlarging pruritic nodules on the scalp, forehead, conjunctiva and lips. Initial biopsy was interpreted as pseudolymphoma, and intralesional steroids were used unsuccessfully. Phenytoin was discontinued because of its known association with pseudolymphoma syndrome, but lesions continued to enlarge and progress. Laboratory studies revealed a white blood cell count of 11,500 with 3% atypical lymphocytes, and anergy to a battery of skin test antigens. Initial marker studies of fresh biopsy material indicated a proliferation of cells marking as helper T cells with aberrant expression of Leu 9, although studies using the T cell receptor beta chain probe showed no DNA rearranged clonal bands. However, subsequent biopsies showed a distinct follicular pattern, with the majority of cells marking as B lymphocytes that were kappa light chain positive. There was still a large population of reactive T cells with normal marker expression. A diagnosis of cutaneous B cell lymphoma was made. Cobalt therapy was administered with good initial response.

All of the types of B cell lymphomas included in the Working Classification have been reported to involve the skin. The unusual features in this case include the long history of phenytoin therapy, which is associated with a pseudolymphoma that usually resolves upon discontinuation of therapy, and the presence of a significant T cell population in tissue sections, which led to the initial impression of a T cell malignancy.

Cutaneous Nocardiosis. Patricia C. Brown, MD, and James W. Patterson, MD, *Richmond.*

A 75-year-old white male presented with a three-day history of pain, edema and warmth in the left popliteal region. Antibiotic therapy was administered for presumed cellulitis, but despite therapy, new skin lesions developed on his left leg. History revealed that the patient had undergone a left upper lobectomy for small cell carcinoma of the lung in 1984; metastatic disease was diagnosed in 1986, and the patient had become leukopenic following the institution of chemotherapy. Physical examination revealed fluctuant subcutaneous nodules, located in a linear arrangement on the posterior left calf, knee and thigh. Laboratory data on admission included a white blood cell count of 200. Biopsy of a fluctuant nodule showed dermal edema, diffuse neutrophilic infiltration and deep dermal necrosis. A modified acid-fast stain (Coates' fite) showed beaded, branching organisms characteristic of *Nocardia* in a focal area of necrotic tissue. Cultures remained negative, possibly because of ongoing antibiotic therapy. The patient was treated with sulfisoxazole 2 gm every 6 hs and surgical incision and drainage of the nodules. His general condition improved, the white count gradually normalized, and he was discharged two weeks after admission.

Nocardia species are members of the family Actinomycetaceae and are native to soil and decaying vegetable matter. Infection in man is usually accidental, due to inhalation or inoculation of the organism. Cutaneous involvement occurs in four clinical forms: mycetoma, lymphocutaneous infection, superficial skin infection, and dissemination with secondary cutaneous involvement. Our patient may have had lymphocutaneous nocardiosis, a rare form of the disease with fewer than 50 cases reported; *Nocardia brasiliensis* is usually the causative organism in these cases. Physicians should be aware of the cutaneous findings in nocardiosis, since this disorder is not infrequently encountered in immunocompromised hosts.

Digital Artery Calcification in Chronic Renal Failure. Cynthia Hall, MD, *Charlottesville.*

A 54-year-old white male presented with a 17-year history of chronic glomerulonephritis and a six-month history of painful necrotic ulcerations of the digits. Examination confirmed the presence of ulcerations of the fingertips of the second through fourth digits bilaterally. Radial and ulnar pulses were intact. Laboratory data included a blood urea nitrogen of 156, creatinine of 9.0, calcium of 9.5 and phosphorus of 9.7. Roentgenographic studies of the hands showed tunneling, subperiosteal resorption

and digital vessel calcification. Isotope scan revealed parathyroid hypertrophy, and digital artery Doppler studies confirmed decreased blood flow. The ulcerations were believed to be the result of ischemia secondary to digital artery calcification, resulting in turn from hyperparathyroidism. Treatment included hemodialysis, a trial of nifedipine, and subtotal parathyroidectomy. Pain gradually subsided, ulcerations began to heal, and repeat Doppler studies revealed improvement in digital blood flow. Digital sympathectomies were subsequently performed, and healing of the ulcers has continued.

The derangement of calcium and phosphorus metabolism associated with uremia is probably a major factor in the pathogenesis of vascular calcification in these patients. The risk for metastatic calcification is high when the calcium-phosphorus product in blood exceeds 70, but vascular calcification can also occur in cases were there is no elevation of this product. In the latter setting, calciphylaxis has been proposed as a possible mechanism. This phenomenon was described initially by Selye, who showed marked local calcification from nonspecific stimuli following injection of animals with parathormone or vitamin D. Further studies are needed to define the role of calciphylaxis in some patients with vascular calcification.

Postpartum Onset of Ichthyosiform and Nodular Sarcoidosis. Robert J. Pariser, MD, *Norfolk.*

Several days after a normal childbirth, a 29-year-old black woman developed painful lesions of the legs and arms. Her previous health had been good, and there had been no pulmonary symptoms or other complaints. Physical findings included hyperpigmented, hyperkeratotic patches that were confluent in some areas, producing a jigsaw puzzle pattern. On the thighs and forearms there were numerous deep-seated, red-tan, tender nodules with normal overlying epidermis. Biopsy of a hyperkeratotic patch showed orthokeratosis, mild psoriasiform hyperplasia, and discrete, noncaseating granulomas in the upper dermis. Biopsy of a dermal nodule showed normal epidermis and similar granulomas in the deep dermis. Laboratory results included a white blood cell count of 3600, calcium of 10.7, and an angiotensin converting enzyme level of 590 (normal 44-125). Chest x-ray showed bilateral hilar and paratracheal adenopathy and was supported by findings on gallium scan. Pulmonary function studies showed a mixed restrictive-obstructive pattern, with predominance of restrictive disease. Ophthalmologic examination was normal. A diagnosis of sarcoidosis was made and the patient was begun on prednisone 40 mg per day.

Sarcoidosis can present in the skin in a variety of guises, including ichthyosiform, hypopigmented, psoriasiform and nodular lesions in addition to the more familiar manifestations of papules, involvement of scars, and lupus pernio. While the development of the disease shortly after childbirth could have been coincidental, it is also possible that the immunological or hormonal changes associated with pregnancy could have precipitated the disease in a susceptible host.

Adrenergic Urticaria. Robert B. Scoggins, MD, *Richmond.*

This entity, first described in 1985, is an autonomic system-dependent urticaria due to an abnormal response to noradrenaline. It is distinguishable from cholinergic urticaria, with which it shares precipitating causes, by clinical appearance (small red papule with a blanched halo instead of a red surrounding flare), by reproduction of that halo hive by diluted noradrenaline skin testing, and by a negative acetylcholine skin test. The patient described here is a 43-year-old white female atopic who had severe urticaria, often precipitated by stress, with numerous small papules, many surrounded by a white halo. The major clue to the diagnosis was provided when severe worsening of the urticaria was precipitated by the injection of aqueous epinephrine hydrochloride 1:1000, 0.3 ml intramuscularly. Beta-adrenergic blocking agents should mitigate this form of urticaria, but both propranolol and nadolol were poorly tolerated by this patient.

Metastatic Malignant Melanoma Arising in a Thermal Burn Scar. T. A. Davidowski, MD, *Charlottesville.*

A 73-year-old white male sustained thermal burns of the left trunk at age 7 that required skin grafting. Multiple squamous cell carcinomas were excised from the burn scar over a 20-year period. He presented with an area of peripheral hyperpigmentation accompanied by inflammation and pruritus, and an excisional biopsy in April 1986 revealed lentigo maligna melanoma, thickness 1.15 mm (Clark's Level III). Physical examination revealed extensive scarring of the left trunk and upper arm with peripheral hyperpigmentation and a 4×4-cm melanotic plaque in the lumbar region. Right inguinal lymph nodes were hard and fixed. The patient underwent a wide excision of the melanocytic plaque with skin graft and right groin dissection.

Histopathologic examination showed precancerous melanosis in the melanocytic plaque and metastatic malignant melanoma in a right obturator lymph node.

The association between thermal burn scar and squamous cell carcinoma is familiar as Marjolin's ulcer, but the development of malignant melanoma in a burn scar is a rare event. Theories about the pathogenesis of carcinomas in burn scars include minor trauma to poorly vascularized tissue, release of toxins and displacement of cellular remnants. Malignant melanomas have also followed other forms of trauma, including tattoos, vaccinations and puncture wounds. Malignant melanoma arising in a burn scar is extremely aggressive, making early diagnosis and therapy critical.

Explosive Pyoderma Gangrenosum. David M. Pariser, MD, *Norfolk.*

A 22-year-old white female in good health developed painful "sores" eight weeks prior to presentation. The lesions began as small pustules and then enlarged, coalesced and ulcerated. Treatments with cephalosporins, trimethoprim-sulfamethoxazole, minocycline and topical preparations were ineffective. Family history revealed that the father had severe rheumatoid arthritis, amyloidosis with renal failure, and severe psoriasis, and that two of the patient's siblings also had rheumatoid arhtritis. The patient was known to be HLA B-27 positive. Physical examination showed multiple lesions in varying stages of development, including necrotic pustules, purulent nodules and ulcerations located over the extremities, trunk and face. Some lesions had healed with scar formation. Biopsy findings included ulceration with lateral epidermal hyperplasia and underlying vascular proliferation with a mixed infiltrate of neutrophils, histiocytes and eosinophils. Treatment was begun with prednisone 60 mg per day in divided doses and dapsone 100 mg per day; within two weeks, most lesions had healed.

Pyoderma gangrenosum is widely considered a condition of altered immunity that includes disturbances of immunoregulation and effector functions, but these changes are not consistently found in all patients. It may be idiopathic or associated with inflammatory bowel disease, rheumatoid arhtritis, paraproteinemia, myeloma, chronic active hepatitis or Behcet's syndrome. Successful treatments have included systemic corticosteroids, sulfones and immunosuppressive agents. Physicians should be aware that this condition may have an explosive onset, even in a patient who has no overt evidence of an associated systemic disease.

Metastatic Neuroblastoma, Stage IV-S. Tien Q. Nguyen, MD, *Charlottesville.*

A 4167-gram male, the product of a full-term, uncomplicated pregnancy, was found at birth to have multiple blue-gray cutaneous lesions and an abdominal mass. Physical examination on admission revealed multiple soft, bluish papules and nodules 3-6 mm in diameter on the palms, soles, axillae, left side of chest, scrotum and foreskin. The liver was palpable at 4 cm below the right costal margin and had an appreciable nodularity. Significant laboratory studies included a 24-hour urine vanilmandelic acid (VMA) level of 1186 mg (normal 10-30 mg), and a CT scan of the abdomen showing multiple cystic lesions in the liver and a calcified suprarenal mass displacing the left kidney. Biopsy of a skin nodule showed sheets of small round cells with scant cytoplasm on a neurofibrillary background within the deep dermis and subcutis. On exploratory laparotomy, a 4×3.5×1.5-cm necrotic mass was removed from the left adrenal gland, and regional lymph node dissection was performed. A diagnosis of metastatic neuroblastoma stage IV-S was made. Treatment was deferred, and the child continues to be followed with serial urine VMA levels and abdominal sonograms.

Neuroblastoma is the most common malignant tumor of early childhood, and cutaneous metastases are frequent in young infants with the disease. Infants with purple cutaneous nodules have been termed "blueberry muffin babies". The disease is classified in Stages I to IV, with a progressively worsening prognosis. However, Stage IV-S, with distant spread to skin and liver, usually remits or transforms into benign ganglioneuroma. This form of neuroblastoma may represent an aggregation of neural crest cells that are arrested in development rather than a true malignant tumor.

Alopecia Mucinosa. Robin Roberts, MD, *Charlottesville.*

A 29-year-old black female presented with a three-week history of a progressive nodular eruption on her face and scalp. Within a week the eruption had also spread to the chest and back. On physical examination there were multiple erythematous papules, nodules and plaques on the face and scalp, with smaller papules and scattered plaques on the chest and back. The scalp lesions were associated with alopecia. The larger plaques and nodules had an excoriated, boggy appearance and revealed scattered pustules, while the smaller plaques possessed patulous follicular orifices. Routine laboratory studies were within normal limits.

Skin biopsy showed accumulations of mucin and cystic changes within the outer root sheaths of hair follicles. The patient was started on prednisone 60 mg per day, to be tapered over a two-week period. Although the patient was initially lost to followup, she returned several months later, at which time the lesions had completely resolved. She stated that they had subsided within three days of starting prednisone therapy, after a total dose of only 60 to 70 mg.

Follicular mucinosis is divided into two categories: an idiopathic form in which there is no associated disease and a symptomatic form associated with lymphoma, usually mycosis fungoides. Changes of follicular mucinosis have also been reported in discoid lupus erythematosus and angiolymphoid hyperplasia with eosinophils. The benign form of the disease presents as one or a few boggy, erythematous plaques on the face and neck of children and young adults, but somewhat older patients may develop more generalized lesions, as seen in this case. This form of the disease follows a chronic, relapsing course. Treatment includes intralesional or systemic corticosteroids, but spontaneous remissions are common.

Atypical Fibroxanthoma in a Patient with Xeroderma Pigmentosum. James W. Patterson, MD, and William P. Jordan, Jr., MD, *Richmond.*

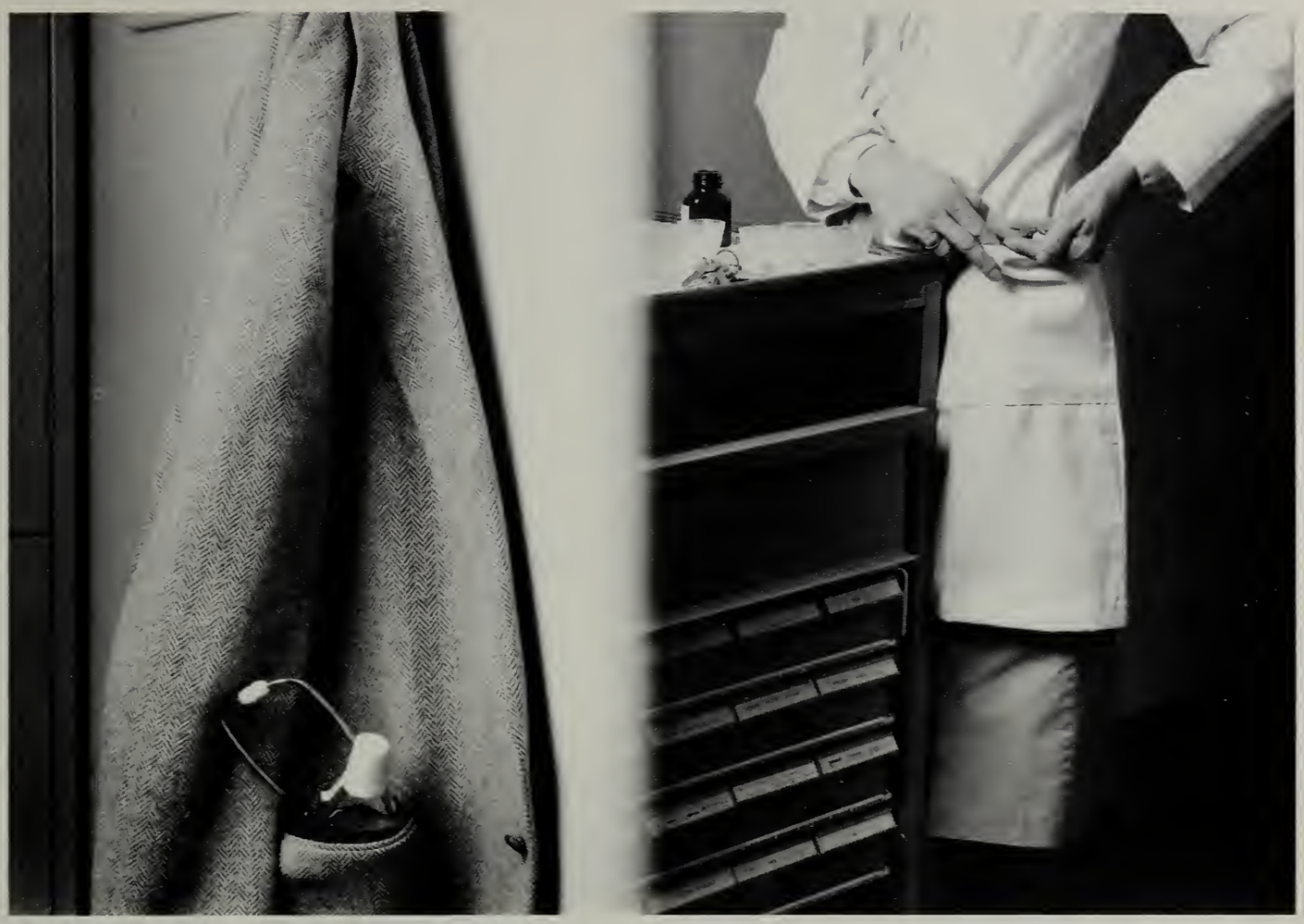
A white male child was first noted to have flaking and freckling of his skin following sun exposure between the ages of 3 and 8 months. At 19 months of age he was examined by a dermatologist, who made the diagnosis of xeroderma pigmentosum. At that time a number of facial skin lesions were identified, and biopsies established diagnoses of actinic keratosis, precancerous melanosis, infiltrative squamous cell carcinoma and keratoacanthoma. A program of careful sunlight avoidance together with application of 5-fluorouracil and tretinoin creams resulted in improvement of the skin, but a small papule of the right ala nasi remained refractory to treatment. A biopsy was performed when the child was approximately 3 years of age. Histopathology revealed an atypical spindle cell tumor without connections to the overlying epidermis. Many cells had distinctly foamy cytoplasm. Immunoperoxidase staining revealed that tumor cells were positive for the histiocytic marker, alpha-1 antichymotrypsin, and ultrastructural study demonstrated cells with features of histiocytes, fibroblasts, and myofibroblasts. A diagnosis of atypical fibroxanthoma was established.

Atypical fibroxanthoma is a tumor that arises most commonly on sun-exposed skin of elderly adults. It is extremely unusual in children. Xeroderma pigmentosum is an inherited disorder characterized by early development of skin cancers as a result of a defect in repair of ultraviolet-damaged DNA. The occurrence of atypical fibroxanthoma in this case adds weight to the concept that this "fibrohistiocytic" tumor is indeed induced by ultraviolet exposure and also suggests that the mechanisms of tumor formation in our patient may be similar to those occurring in the more typical situation in adults.

Harlequin Fetus. Estelle Young, MD, *Petersburg.*

A female infant was a 36-week, 2.64-kilogram product of a pregnancy complicated by mild preeclampsia and premature rupture of membranes in a 25-year-old woman. At delivery there were large amounts of unusual vernix and obvious skin deformities. The infant remained in isolation for the first 20 days of life following isolation of *Clostridia perfringens* from the skin. Physical examination revealed extremely thick plates of stratum corneum separated by fissures. The ears were encased in scale. There were marked eclabium and ectropion, producing a grotesque appearance. There were contriction bands about the left index finger and over the toes, and the hands were held in a claw-like conformation. She was able to cry with tear production, had a good suck reflex and was alert to sound. Biopsies from thickened and normal appearing skin both showed psoriasiform hyperplasia and massive parakeratosis. A diagnosis of harlequin fetus was made. Emollients were used to soften the skin, and the face and scalp dramatically cleared. During hospitalization, she was treated for otitis media and an upper respiratory infection. Dermatologic management included oil baths and applications of bacitracin and polysporin ointments for fissured areas. Prior to discharge, 13-cis retinoic acid 3 mg per day was begun, but the infant had persistent weight loss and failure to thrive, and died in March 1986 at 3 months of age.

Harlequin fetus is considered the most severe form of ichthyosis. These infants are born prematurely with low birth weight and are encased in thick, armor-like plates of skin. Respiration is restricted, and infection and death usually ensue within a few weeks. The pattern of inheritance is autosomal recessive, and diagnosis by fetal skin biopsy during fetoscopy is feasible. X-ray diffraction patterns and keratin polypeptide composition vary from case to case. The dramatic clearing of the face and scalp seen here is a most unusual feature.



How many reasons can you think of to avoid helping the alcoholic or drug abuser you work with?

"I'm so embarrassed and angry about Dr. Warren . . . we can't afford a lawsuit . . . he's such a nice man . . . but I'm not going to tell on him."

"I entered this profession to help patients but watching Ann neglect her patient's needs and discredit our profession makes me wonder why **someone** *hasn't done something!"*

"If John keeps this up we'll lose all our patient's business and I'm working overtime to cover his mistakes. He's going to lose his license but I'm certainly not getting involved - he would think I turned him in."

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OBITUARY

Memoir of C. J. Frankel 1908-1987

By Frank C. McCue III, MD, and J. Thomas Hulvey, MD

Dr. Charles James Frankel died after a lengthy illness at the University of Virginia Hospital on July 8, 1987. He was a professor of orthopedic surgery and had served on the faculty of the University of Virginia School of Medicine for 46 years. He was named professor emeritus in 1979.

Dr. Frankel was born on July 18, 1908, in Eastman, Georgia, and graduated from Lafayette College in 1929. He received his degree in medicine from Rush Medical College, University of Chicago, in 1934, and interned at St. Louis City Hospital and Washington University in St. Louis from 1934 to 1936. He completed a residency in orthopedic surgery at the University of Virginia and had subsequent training at the Children's Hospital in Baltimore and Shriner's Hospital in St. Louis, Missouri. He was on the faculty at Washington University in 1939. He served in the United States Naval Reserve Medical Corps from 1935 to 1954. He returned to the University of Virginia in 1941 and remained a member of the faculty until his death. Dr. Frankel received a law degree from the University of Virginia in 1957.

He was a diplomate of the American Board of Orthopaedic Surgery and had served as a faculty member of the American Board of Orthopaedic Surgery, acting as vice president in 1958. He was a member of the American Orthopaedic Association, the American Academy of Orthopaedic Surgery, and O.D.K. He was medical-legal editor of *Clinical Medicine* and chief editor of *Lawyer's Medical Cyclopedia*. He was a member of numerous professional organizations, including The Medical Society of Virginia, the Virginia Orthopaedic Society, Southern Medical Association, the Albemarle County Medical Society, the American Medical Association, the American College of Legal Medicine, the Orthopaedic Research Society, and the American Association of University Professors.

He was a well-known authority on the legal aspects of the practice of medicine and enjoyed a long and distinguished association with sports medicine. He was team physician at the University of Virginia for 30 years, and the University of Virginia Student Aid Foundation and former students had honored him with a scholarship in his name.

Dr. Frankel was one of the first physicians to hold clinics throughout the state as a consultant for the Bureau of Crippled Children.

Dr. Frankel is survived by his wife, Gladys, his son, Charles J. Frankel, III, daughter-in-law, Dawn, and one granddaughter, Kimberly. Dr. Frankel was a highly skilled, compassionate physician, who managed his patients with great care and concern. His approach to problem-solving was firm, direct and unswerving. To his friends, colleagues and students he was a warm and caring man who had a wonderful sense of humor. He will be long remembered and sorely missed by those who were privileged to know him well.

Memoir of R. H. Boulware 1911-1987

By G. E. Calvert, MD, and W. McK. Massie, MD

Dr. Ralph H. Boulware, a family physician of 33 years in Lynchburg prior to his retirement in 1982, died in Florida Keys Memorial Hospital, Key West, Florida, on January 16, 1987.

Born in Irmo, South Carolina in 1911, his undergraduate studies were completed at Johnson C. Smith University in Charlotte, North Carolina, in 1935. He later completed medical school in Kansas City, Missouri, and postgraduate training at the Community Hospital in Wilmington, North Carolina. Following this, he practiced in Lynchburg with the late Dr. R. Walter Johnson for a brief period.

In 1945 Dr. Boulware enrolled in Howard University and completed a second course of medical education, receiving a MD degree in 1949. Returning to Lynchburg, he began practice, which was interrupted by two years of service in the US Army.

Dr. Boulware was appointed to the board of directors of the Virginia Academy of Family Practice in 1968, serving for three years. He served his community for many years in the Lynchburg Health Department clinics and as examining physician for the Dunbar High School football team.

Traveling was Dr. Boulware's hobby, and with his wife he visited most of the United States and a number of foreign countries. He continued to enjoy traveling following his retirement.

Dr. Boulware was loved by his patients and respected by his colleagues. He will be missed and remembered for his years of exemplary service, his friendly manner, and his generous spirit.

His wife, Hazelle Eaton Boulware; two sons, Ralph H. Boulware, Jr., and Rick W. Boulware; and one daughter, Mrs. Estelle Richman, survive him.

Memoir of Karl Menk 1920-1987

By John H. Guss, MD

Virginia physicians lost one of their most esteemed colleagues on June 7 when Karl F. Menk finally succumbed to a lymphoma which had plagued him for nearly four years. Dr. Menk was widely known and greatly respected not only by his physician friends but also by a host of others both in Virginia and in Alabama where he spent the year 1972-1973 as visiting associate clinical professor of pathology at the University of Alabama.

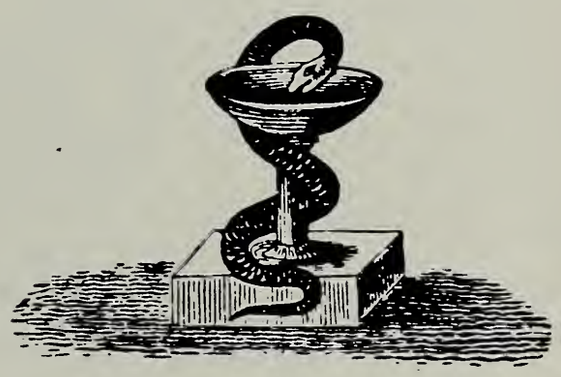
After receiving his undergraduate degree (1942) and MD (1944) from the University of Virginia, where he was selected for membership in the Raven Society and Alpha Omega Alpha, he completed his internship (1945) and pathology residency (1945-50) at the same institution. This was followed by a year of postgraduate work at the Armed Forces Institute of Pathology. He was a diplomate in both clinical and anatomical pathology, of the American Board of Pathology, by which he was certified in 1951.

Dr. Menk then came to Staunton, where he became director of the laboratory and organized the departments of pathology at the King's Daughters Hospital, the Stonewall Jackson Memorial Hospital in Lexington, and the Waynesboro Community Hospital. He continued as pathology director at the Staunton and Lexington hospitals until his retirement in 1981. During these years, he served as consultant in pathology to Western State Hospital and the Woodrow Wilson Rehabilitation Center. He was appointed associate clinical professor of pathology at the University of Virginia in 1966, a position he held until his death. He was also on the faculty of Mary Baldwin College as instructor in microbiology (1965-67) and served as the director of the School of Medical Technology from its beginning in 1956 until his retirement. He authored a flurry of papers on a wide range of pathological subjects in regional and national journals.

In addition to local medical societies, he held memberships in the American Society of Clinical Pathology, the College of American Pathologists, the Virginia Society of Pathology, the American Association of Blood Banks, the International Academy of Pathology and the American Society of Cytology. During both World War II and the Korean conflict he served the nation as a lieutenant in the United States Navy.

Karl Menk was an uncommonly intellectual, interesting and complex human being, revered by many whose lives were touched by his. He was an accomplished pathologist and could have pursued his career in full-time academic medicine. He brought an intellectual nobility to the practice of medicine so often found wanting in the medical scene today. He demanded excellence of those who worked for him and was often quick to show his displeasure with those who fell short of his goals, yet he was a warm and caring individual who was always sensitive to the problems of those about him. He was ever ready to share his vast store of information with those of his peers who sought his help.

He was a lifelong member of the Presbyterian Church and after his retirement in 1981 he went as a volunteer in mission to Korea. He served for a year as pathologist at the Kwanju Christian Hospital under the auspices of the Board of World Missions of the Presbyterian Church U.S. It may have been there that his final illness had its beginning, for he became indisposed shortly after coming home. The course of the malignancy was characterized by numerous exacerbations and remissions as he subjected himself to all of the treatment modalities offered to him. Throughout all of these tribulations and travail, he continued to show courage and strength and maintained his good sense of humor to the end. The medical community is much diminished by his death.



• **Hamner, James Loving, Sr., MD,** Mannboro; Medical College of Virginia, 1916; age 93; died August 4; general practitioner in Amelia County for 56 years; former President of The Medical Society of Virginia and the Virginia Academy of Family Physicians. A memoir of Dr. Hamner is being written for the October issue.

• **Basil B. Jones, MD,** Richmond; Medical College of Virginia, 1917; age 94; retired pediatrician and one of the first professors of pediatrics at MCV.

• **Roger Gregory Magruder, MD,** Charlottesville; University of Virginia School of Medicine, 1933; age 79; died November 5, 1986; retired internist and assistant clinical professor of medicine at the University of Virginia.

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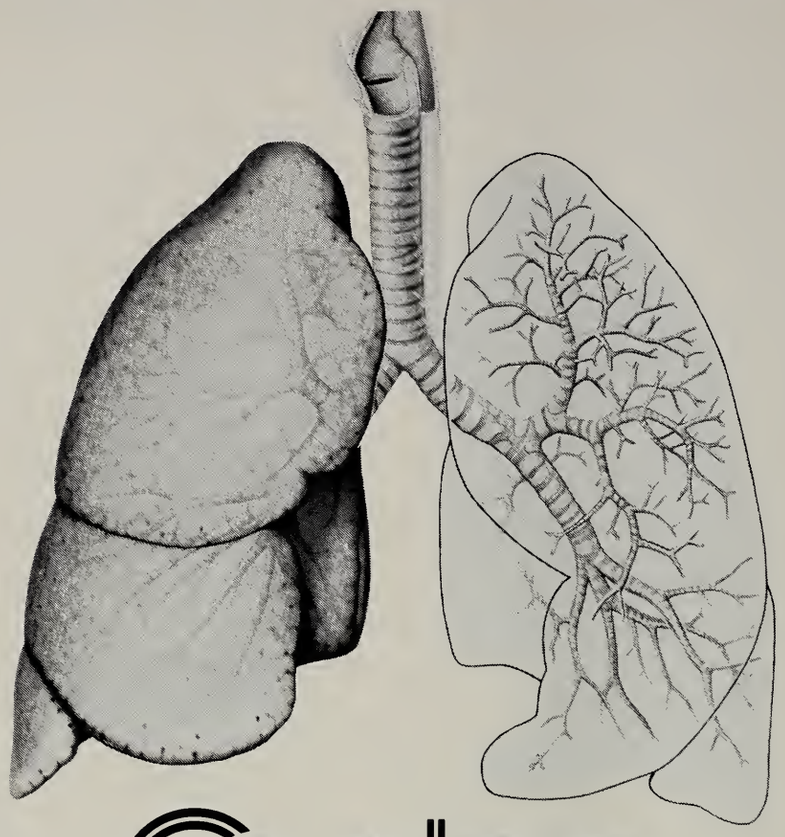

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Original cover art by Gary Brookins, nationally syndicated cartoonist for the Richmond Times-Dispatch

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LETTERS

Encouraged by disciplinary increase and openness of Board

Dr. L. Benjamin Sheppard's editorial titled "Screening for Ethics" in the July issue[1] was interesting and I think warrants some comment.

First of all, it is true that the State Board of Medicine has been involved in far more disciplinary actions than in the past, and furthermore, it has been far more public and open about such actions. I am not discouraged by these actions but rather am quite encouraged by them. Let me point out that The Medical Society of Virginia several years ago created an ad hoc committee to deal with this situation and requested that our Society's dues be increased to strengthen the State Board of Medicine. Thus we can take great pride in the fact that a request for better discipline through the legal agency licensing physicians came from organized medicine before it ever came from the public. The problems were present all along. The board has simply been more vigorous in dealing with them and certainly far more open in reporting them. Perhaps if we had been a little more vigorous a little earlier in the situation, we might not have as severe a malpractice crisis today.

With regard to the suggestion that medical school admission committees apply screening for behavioral problems, I served on a medical school admissions committee for four years and I don't know how this could ever be done. First of all, there is little in the way of objective standards for reporting behavior of this nature. Also, by the very nature of recommendations, an individual submitting an application is likely to seek out someone who would write a good recommendation, not someone who would reveal his faults!

I doubt seriously that psychiatric interviews or psychological testing would be very predictive of unethical behavior in most situations, even if it were feasible to apply them.

The situation is indeed a difficult one. I believe our best hope is to realize that we as a profession must take a strong hand in the situation, identify problems, and offer help to those who are willing to accept it. Those who are not willing to do so will require disciplinary action by the State Board of Medicine or weeding out of the profession.

Charles L. Cooke, MD

7702 Parham Road
Richmond VA 23229

1. Sheppard LB. Screening for ethics. Va Med 1987;114:423

BOOKS

The McGuire Clinic: The First Sixty Years, 1923-1983, a Personal History, by John P. Lynch, MD. Richmond, Dietz Press, 1987, 178 pages, illustrated, $15.

In 1923 Dr. Stuart McGuire established a clinic in Richmond to provide collective, multidisciplinary, specialized consultation and care. He hoped to imitate and rival the Mayo Clinic in Rochester, Minnesota. Attractive instruments of the McGuire Clinic were its adjacent St. Luke's Hospital and the prestige of its founder, but its feature attraction was comprehensive expertise at reasonable cost. In its first year, one-third of patients came from outside Virginia to be seen in offices at 1000 West Grace Street.

Dr. John Lynch joined the staff of the McGuire Clinic in 1937 and for 47 years played a major role in its scientific and social evolution. He has seen it through depressions and prosperity, through wartime shortages and community competition, through government control and corporate takeovers. Dr. Lynch has now written a history that is "personal" because it recalls the unique characteristics and contributions of individual physicians, administrators, nurses and aids. Each is introduced in the context of his or her time in the history of American medicine.

The story begins with the "imperious personality" of Stuart McGuire, its reflection in the personalities of his surgical associates, and its perpetuation for 43 years by his autocratic administrator, Dr. John Bell Williams. Especially interesting is Dr. Williams' 1925 account of visiting the efficient but impersonal Mayo Clinic. The McGuire Clinic was for many years so personal that dominant personalities either dominated or departed. Several departed to become department chairmen or deans at the Medical College of Virginia. Others quietly and sacrificially served their patients and the Clinic.

For most of the Clinic's history patients paid their own bills, and to profit from a suffering patient was considered unethical. This noble sentiment and the Great Depression reenforced the extreme conservatism of the Clinic's management. If in any year the Clinic or St. Luke's Hospital realized a profit, it was diverted to cover the other's deficit. Health insurance was opposed in 1933 as an invitation to undesirable patients and cut-throat competition. Not until 1956 were Blue Shield payments accepted for government employees. In 1963 this reviewer was employed at the same salary paid his father 40 years earlier. During that time fees for most operations remained the same.

STUART MCGUIRE, MD

After World War II talented and vigorous young men were added to the staff and the Clinic prospered, still controlled by Dr. Williams but uncontrolled by government. Until 1948 there were no operative permits, no minimum wage and no civil rights. Costs were kept low by paying nurses less than $250 per month and aids about $100 per month. The Clinic covered hospital deficits with profits from its x-ray and pathology departments.

Dr. McGuire died in 1948, his widow in 1963, and ownership of the Clinic and St. Luke's Hospital passed to the Medical College of Virginia. Then entrepreneurial young partners wrestled control from their elders and borrowed money to buy the Clinic and St. Luke's from the MCV Foundation. In 1971 they sold their property to Humana and separated clinic and hospital management. In 1974 the McGuire Clinic bought from Humana land on Parham Road where the new St. Luke's would be built. In 1975 the Clinic's 26 physicians moved into their new facility. By 1982, when they contracted with PruCare to become Richmond's first HMO, the staff had grown to 72 physicians, developed five satellite clinics, and required a $3.5 million addition to their building. After 60 years Dr. McGuire's goal was being vigorously pursued, but without responsibility for hospital management.

Dr. Lynch concludes his history by saying its purpose will be served if it motivates physicans who will make up the future of the McGuire Clinic. His fast-moving account, however, may serve a broader purpose for a wider readership. The frustrations and achievements of the McGuire Clinic, its interplay between personalities, principles and events, should be usefully instructive to anyone who would bear a responsible role in the organized provision of health care.

HUNTER H. MCGUIRE, JR., MD

Chief, Surgical Service, 652/112
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Public Affairs Report

THE 1988 POLITICAL CAMPAIGNS are beginning to shape up. For the physician who wants to play a key role in the selection process, the AMA is sponsoring the Participation '88 program. Write or call Participation '88, 1050 Connecticut Avenue NW, Washington DC 20036, (202) 785-2070.

MEDICAL ISSUES ARE EMERGING as some of the most prominent concerns of Americans. The mail received by some of the major presidential candidates indicates that AIDS, Medicare, and catastrophic medical expenses are the top issues, well ahead of the economy and world peace.

HCFA IS TO PUBLISH a new list of the death rate at each of 6,000 hospitals that care for Medicare patients in the United States. The data will compare the actual death rate of Medicare patients treated against a statistical model. AMA Executive Vice President James H. Sammons states that HCFA's methodology is invalid and inappropriate.

"MEDICARE PHYSICIAN REIMBURSEMENT, an AMA Perspective" is the title of a new booklet published by the AMA. It gives a summary of present Medicare reimbursement policies and a projection of the proposed relative value scale (RVS) under study by the AMA and Harvard. Single copies are available free by contacting the AMA Department of Health Care Financing, 535 North Dearborn, Chicago IL 60610.

A MAJOR CALL FOR TORT REFORM is made by a recent report from the Department of Health and Human Services. It calls on the states to limit noneconomic damages, eliminate the "ad damnum" clause (which allows a plaintiff to claim a specific dollar amount of damages), set limits on attorney's fees, and provide for periodic payment of damages. The report also recommends the development of alternative mechanisms for resolving disputes.

LOUISIANA IS TO REQUIRE premarital AIDS testing beginning in January 1988, thus becoming the first state to start AIDS testing on a routine basis.

A WOMAN INTERNIST, Dr. Pamela Gurnick, has become a member of the Friendship Heights, Maryland, Rotary Club, following the Supreme Court's recent ruling that state laws against sex discrimination apply to all-male service clubs.

W. Leonard Weyl, MD

VIRGINIA MEDICAL
OCTOBER 1987

Pediatric Lung Disease in Virginia

Barry V. Kirkpatrick, MD, Gilberto Rodriguez, MD,
Sarah Stacy and Darhlene E. Zeanwick, *Richmond, Virginia*

A survey of 21 Virginia hospitals showed that a total of 36,173 pediatric patients were admitted during 1985 and that lung diseases were the primary diagnoses in 3,148 of that number. Asthma was the most frequent diagnosis (61.4%). Acute bronchitis and broncholitis added 28.6%. Less common were pulmonary tuberculosis (0.2%), sarcoidosis (0.4%), and chronic airway disease (0.4%). Twelve patients were dependent on mechanical ventilators.

Acute lung diseases are a common cause of illness and death in childhood.[1] The Pediatric Lung Disease Committee of the American Lung Association of Virginia is charged with the responsibility of directing the association in its efforts to assist medical professionals and to educate the general public as to the prevalence and seriousness of pediatric lung disease in Virginia. Data regarding the full extent of pediatric lung diseases in Virginia are scant. Since most children with acute respiratory conditions are treated as outpatients by pediatricians, family physicians and emergency room physicians, a comprehensive survey would be logistically difficult to carry out. The committee felt that more suitable surveys could be done by examining the discharge diagnoses of pediatric patients and using this information to develop a data base for pediatric lung disease in Virginia.

From the Medical Education Department, St. Mary's Hospital, Richmond, and the Department of Pediatrics, Divisions of Community Pediatrics (Dr. Kirkpatrick) and of Allergy, Immunology and Pulmonology (Dr. Rodriguez), Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Kirkpatrick at St. Mary's Hospital, 5801 Bremo Road, Richmond VA 23226.

This paper is the result of a project of the American Lung Association of Virginia's Pediatric Lung Disease Committee, of which Dr. Kirkpatrick is chairman and the other three authors are members.

Materials and Methods

From a list of general and children's hospitals in the state,[2] 29 facilities were selected, based on 1) availability of pediatric beds, 2) geographic location, and 3) size of the facility. The hospitals selected represented a cross section of large urban, teaching, suburban, small-city and rural hospitals from all regions of the state. Each hospital was asked to participate on a voluntary basis; 21 of the 29 chose to do so. Unfortunately, one children's hospital and one large urban referral hospital and several smaller regional hospitals did not take part.

The survey was designed to tabulate the hospital discharge diagnoses of patients under 21 years of age with certain pulmonary disorders for the calendar year 1985. Because physicians often use a variety of terms

for reactive airway disease, the questionnaire was designed to capture all diagnoses from ICD-9-CM Codes which could be used for asthma or similar disorders.[3] Data was also sought for the discharge diagnosis of broncholitis, chronic bronchitis, chronic airway obstruction, atypical mycobacterium lung infection, tuberculosis and sarcoidosis. In addition, a point-prevalence survey was made in an attempt to learn the number of ventilator-dependent children hospitalized at the time this survey was conducted.

Results

The 21 hospitals completing the questionnaire (Table I) represented 578 functional pediatric beds (616 licensed beds less 38 unused beds). Admitted during 1985 to these 21 hospitals were 36,173 pediatric patients.

Pediatric lung diseases were responsible for the primary diagnoses of 3,148 patients. This was 8.7% of all pediatric admissions for 1985. Asthma made up the most frequent discharge diagnosis; 1,934 of the 3,148 children with lung disease had asthma. This group was 61.4% of all lung disease patients. In the group under 18 years of age, 1,798 of 2,954 children (60.9%) had asthma. There were 136 older teenagers (18–21) discharged with asthma out of a total of 194 lung patients (70.1%). When the diagnoses of acute bronchitis and acute broncholitis were added to the diagnoses of asthma, 2,823 out of 3,148 had these conditions. These three diagnoses accounted for 90.0% of all pediatric lung disease patients (Figure 1).

Only two children under 18 years of age and five between 18–21 were diagnosed as having pulmonary tuberculosis (0.2% of all lung diagnoses). Twelve patients had discharge diagnoses of sarcoidosis (four were under 18, eight were between 18–21 years). Sarcoid made up 0.4% of the discharge diagnosis. Chronic airway disease was diagnosed in 13 children and made up 0.4% of the patients (Table 2).

In the same survey, an attempt was made to identify the numbers of children who were dependent on mechanical ventilators for more than one month's duration. Twelve patients were so identified; seven of them were under 6 months of age, one was between 6–12 months, and four children were between one–21 years. It was unclear from the survey if these 12 children occupied licensed pediatric beds. If so, they represented 2.1% of the 578 functional beds at the time of the survey.

Table 1. Hospitals Taking Part in the Survey

Alexandria Hospital
Arlington Hospital
DePaul Hospital, Norfolk
King's Daughters' Hospital, Staunton
Lonesome Pine Hospital, Wise County
Lynchburg General-Marshall Lodge Hospitals
Medical College of Virginia Hospitals, Richmond
Memorial Hospital, Danville
Naval Regional Medical Center, Portsmouth
Radford Community Hospital, Radford
John Randolph Hospital, Hopewell
Rockingham Memorial Hospital, Harrisonburg
St. Mary's Hospital, Richmond
Tazewell Community Hospital
Twin County Community Hospital, Galax
University of Virginia Hospital, Charlottesville
Mary Washington Hospital, Fredericksburg
Williamsburg Community Hospital
Winchester Medical Center Hospital
Wise Appalachian Regional Hospital

Fig. 1. Diagnoses of Pediatric Lung Disease at 21 Virginia Hospitals in 1985.

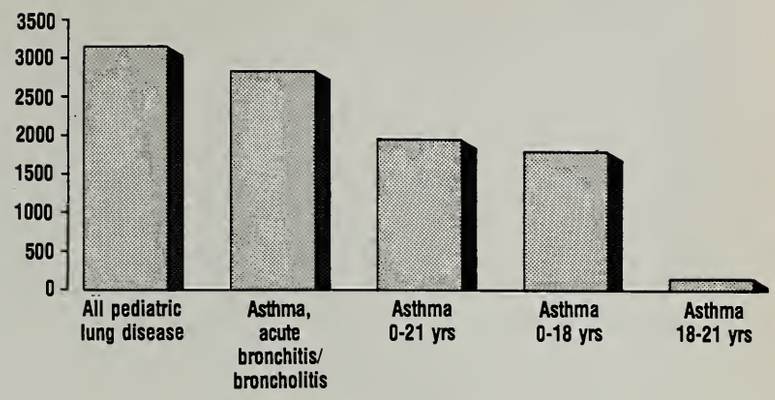

Table 2. Prevalence of Pediatric Lung Disease by Diagnosis at 21 Virginia Hospitals in 1985

	<18 years	18–21 years	Total
Asthma	1,798	136	1,934
Acute bronchitis	441	12	453
Acute bronchiolitis	430	6	436
Chronic bronchitis	159	9	168
Chronic airway obstruction	9	4	13
Atypical mycobacterium lung infection/disease	1	0	1
Tuberculosis	2	5	7
Sarcoidosis	4	8	12
Other lung diseases	49	3	52
Other respiratory diseases	61	11	72
Total	2,954	194	3,148

Discussion

Acute lung diseases in children account for a significant number of pediatric admissions in Virginia. Almost 9% of the 36,173 pediatric discharge diagnoses was due to lung disease. Since no effort was made to separate pediatric surgical and medical patients, the percentage of patients with lung disease would have been higher if only medical admissions had been considered. Our survey made no effort to document length of hospital stay or cost. It would be safe to say, however, that hospitalization for pediatric lung disease is a significant factor in school days lost, medical care expense, and stress on the family. Since the hospitalized patient represents only the tip of the iceberg in the

SPECIAL REPORT

Autopsies in Virginia: Findings and Recommendations

At the request of The Medical Society of Virginia, the Virginia Society for Pathology appointed an ad hoc committee to look into the status of the autopsy in Virginia and to make recommendations for its improvement. Specific concerns included the declining autopsy rate and whether autopsies could be completed in time to make the results more useful to physicians, families and hospitals.

Following its appointment in December 1985, the committee agreed to conduct a survey of pathologists and clinicians in the state to gather factual information and attitudes with respect to the autopsy. Two questionnaires were developed, one for clinicians and one for pathologists. All 150 members of the Virginia Society For Pathology were surveyed; 92 responded. Questionnaires were sent to 500 members of The Medical Society of Virginia selected randomly, excluding pathologists; 155 responded. In addition, the clinical staffs of Riverside Hospital, the Medical College of Virginia, and the University of Virginia School of Medicine were surveyed completely.

The collected data (available on request) suggest that despite the decline in numbers, the autopsy is still regarded as a valuable procedure. The findings at autopsy are used chiefly to reassure the families of the deceased and for modifying diagnostic and therapeutic methods. We are doing fewer autopsies than we think we should be doing. The autopsy rate across Virginia is about 10% and 20–30% in the two academic centers surveyed, whereas responders on average thought the rate should be 25% (statewide) to 60% (academic centers). But if rates increase substantially, additional personnel (technical and professional) will be needed. Most pathologists favor compensation on a per case basis, an arrangement which prevails only in a small minority of practices. The prevailing practice of no specific compensation for doing autopsies quite naturally makes pathologists less interested in doing them and probably contributes indirectly to declining autopsy rates. Both the methods and the timeliness of communicating the results of autopsies to clinicians need attention. Although final autopsy reports are often delayed, most pathologists think that reports could and should almost always be completed within one month. Families apparently still associate the autopsy with continued suffering and mutilation of the deceased. This prejudice will have to be overcome if rates are to rise.

To paraphrase G. K. Chesterton, it is not that the autopsy has been tried and found wanting but rather it has too often been found difficult and left untried. It is difficult for clinicians to obtain permission from the grieving family. It is time-consuming and burdensome for the pathologists, who have found more rewarding uses for their professional time.

But it seems that Virginia physicians still believe in the autopsy (fewer than 5% of responders thought the autopsy had outlived its usefulness) and wish to preserve and improve it. To restore the autopsy to its rightful place in the medical care system will require the cooperation of clinicians, pathologists, hospital administrations and third-party payers.

Accordingly, the committee has made the following recommendations:

1. Clinical staffs should be encouraged to establish a *minimum* acceptable autopsy rate for their hospitals.

2. Pathologists should communicate with clinicians *before* the autopsy to determine the necessary scope of the procedure and to present the findings afterwards.

3. Immediately following the autopsy, pathologists should either write a brief note in the progress notes of

Dr. Sturgill, who is director of the autopsy service at the University of Virginia, was chairman of the ad hoc committee he describes. Serving with him as members were Dr. Jacques F. Legier, Newport News; Dr. Charles W. Moncure, Richmond; Dr. John M. Perry, Lynchburg; Dr. R. Lawrence Smith, Virginia Beach; and Dr. F. Lee Tucker, Roanoke.

Address correspondence to Dr. Sturgill at Box 214, University of Virginia Medical Center, Charlottesville VA 22908.

the chart outlining the major findings and preliminary conclusions or have the provisional report on the chart within 24 hours.

4. Pathologists should establish a goal of completing autopsies as soon as possible but within *one month.*

5. The findings at autopsy should be *regularly* compared with the clinical diagnosis by the medical care/quality assurance committee of each hospital to identify particular problems in antemortem diagnosis and to use the autopsy as a quality assurance tool.

6. Autopsy rates and results should be reported to the clinical staff on a regular (monthly ?) basis.

7. Hospital administrations should be encouraged to fund the autopsy service as a cost center, including appropriate support personnel (autopsy assistant, secretary, technicians) and a reasonable professional fee per autopsy.

8. Methods for recovering the cost of autopsies should be explored by hospital administrations, clinicians and pathologists.

9. Efforts to educate the public about the value of the autopsy should be undertaken by all members of the health care team.

10. Complete autopsies are encouraged but under certain circumstances as an alternative to a complete autopsy, clinicians and pathologists may at times consider a limited autopsy directed toward the specific area of interest.

11. These recommendations should be presented by the chief of pathology of each hospital or medical center to their respective medical staff, administration and boards.

BENJAMIN C. STURGILL, MD

The committee thanks The Medical Society of Virginia and the Virginia Society for Pathology for assistance with the mailing of surveys; George Nowacek and Frederick Richards of the Office of Medical Education, University of Virginia, for assistance in preparation of the questionnaires and analysis of data; and Louise Tressler for her secretarial assistance.

overall picture of the whole pediatric population, pediatric lung disease is a major factor in childhood morbidity.

As was expected, asthma was the most frequent cause of hospitalization for pediatric lung disease. Asthma is often poorly managed medically, and it is poorly understood by many patients. Over 60% of pediatric lung patients have acute asthma according to the survey; physicians should be alerted to the prevalence of this disease and its management. Proper instruction as to home management of asthma is an essential component of family asthma education programs.

Chronic pulmonary disease and pulmonary disease due to tuberculosis and sarcoid made up a small number of patients. It was unclear whether this was due to the actual low frequency of these disorders, the failure to code adequately these diagnoses at discharge or the failure to diagnose accurately.

Twelve children were identified as chronically ventilator-dependent at the time of the survey. These numbers may be low because 1) two large hospitals in which ventilator care for children was available did not take part in the survey; 2) some hospitals treat ventilator patients in nonpediatric (i.e., ICU) beds; and 3) pediatric patients may be carried in hospital records as surgical or other nonpediatric patients and therefore not included in the survey. However, chronically ventilator-dependent pediatric patients are present in Virginia, their special needs and the need for home ventilator care are very real,[4, 5] and a followup survey needs to be carried out to better document the prevalence of this problem.

Summary

A significant number of pediatric lung disease patients are admitted to Virginia's general and teritary care hospitals each year. Continued efforts should be made to keep practitioners and the public aware of this serious medical problem.

The authors thank Ms. Susan Shackelford, president of the Virginia Medical Record Association, for her helpful suggestions and the medical records departments from each of the 21 hospitals that took part in this survey. We also thank Mrs. Rebecca Thomas for typing the manuscript and Ms. Carol Wise for her technical assistance.

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Points of View

The birth of the drug repackaging industry has generated debate about the dispensing of drugs by physicians, and Congress is considering legislation restricting such sales. Two physicians and a lawyer speak to the issue.

JOHN BONIFACE, JR.

"The pharmacist's checks and balances would be lost."

ABOUT a year ago a repackaging firm asked the opinion of The Medical Society of Virginia on a marketing proposal involving the dispensing of drugs by physicians in their offices. The matter was referred to the Pharmacy Committee, and at the Society's 1986 annual meeting, the House of Delegates endorsed the committee's recommendation to oppose to routine drug dispensing by physicians for profit. At a meeting in May, the MSV Council reaffirmed that position after reviewing the Medical Practices Act of the Virginia Code. This act defines as unprofessional conduct the selling of medicines for the supplement of income or the convenience of the physician.

The major concern of members of the Pharmacy Committee and of the House and Council is that alteration of the present statute will adversely affect the quality of care given to patients in Virginia. The time-honored, time-tested relationship of physician-pharmacist-patient affords the best possible care in respect to prescription drugs. That physicians dispensed freely before the 1940s is a hollow argument in light of the great complexity of medical care today and the proliferation of available drugs. Dispensing drugs through the local pharmacy, the pharmacist provides checks and balances that would be lost if present Virginia law is altered. To name but a few of these checks and balances:

1. Chronically ill patients often require multiple drugs for their management. The pharmacists checks the physician's analysis of drug compatibility.
2. Many patients are now cared for by multiple physicians. With the pharmacy's patient profile and record-keeping, the pharmacist is central to monitoring the interaction of multiple drugs.
3. Occasional errors by physicians in prescribing can be intercepted by the pharmacist, who can call the physician for corrections.

There are exceptional circumstances in which a physician must do both the prescribing and the dispensing of drugs, and these exceptions are incorporated in the present Virginia law. In a rural area where there is no pharmacy, for instance, the physician must be allowed to dispense; having practiced in Southwestern Virginia, I am well aware of the necessity of preserving this exception. Public health clinics present another exception.

The argument that physician-dispensing will afford financial savings

Dr. Boniface is chairman of The Medical Society of Virginia's Pharmacy Committee. Address correspondence to him at 2216 Princess Anne Street, Fredericksburg VA 22401.

to the patient should not override questions of quality of care, because quality of care, not medical economics, should be the determinant in this issue. Moreover, insurance programs and special interest groups, such as the American Association of Retired Persons, offer competitively priced drugs.

As a practicing internist, I have enjoyed the relationship I have developed over the years with my local pharmacists. I consider them valued professionals. I appreciate their input, which provides my patients with an improved level of care. ■

JOHN D. GRAD:

"The conflicts are no different than in the sale of lab tests."

UNDER current Virginia law, a physician can sell drugs, eyeglasses and medical devices (such as hearing aids, orthopedic devices and so forth) to a patient so long as the sale is for the convenience of the patient but is not for the "convenience" of the physician (whatever that means), and the doctor's mental intent is not to supplement his income.[1]

According to three Attorney Generals' opinions on this section of the Virginia Code, a doctor's intent to "supplement his income," which is proscribed, is not necessarily the same as making a profit on an item. What is at issue is a doctor's mental intent. Having a profit margin on an item is okay; intending to swell the bank account is not.

The Board of Medicine has enough to do without also having to worry about mind-reading. How, absent flagrant profiteering, can the Board identify the illicit profit-oriented thoughts of those few physicians who might be interested in making money from the sale of products? It cannot, and the law has been virtually unenforced.

This and other regulatory laws with economic overtones have been the subject of general scrutiny by the Board and other state agencies. The recent debates over advertising laws come to mind. The Federal Trade Commission, consumer groups and other advocates of free flow of information and market availability have lobbied extensively in recent years for the abolition of laws which have restrictive economic impact without clear regulatory justification. Against this backdrop, the Virginia Code Commission recently held a review of this section of the Code as well as numerous others of like nature, and the Virginia State Board of Medicine held hearings in May about this very section.

These discussions and debates have taken on a new urgency and stridency because of the overnight growth of a new industry: drug repackaging. FDA-regulated companies are now repackaging pharmaceuticals in bottles containing patient-ready therapeutic dosages. For example, a physician can now sell a prepackaged bottle of a seven-day supply of antibiotic pills to his patient rather than writing a prescription and sending the patient to the drug store. The bottles are prelabeled, have appropriate warnings and are otherwise ready for distribution to the patient. Most of these drugs are priced so that, even after a $2-$3 handling and overhead charge is added to the cost of the drugs, the resulting price is equal to or less than the price which would be paid at drug stores.

America pays $30 billion a year for its pharmaceuticals. The spector of hundreds of thousands of physicians dispensing drugs has driven the drug stores into a wild frenzy of legislative lobbying to protect their multi-billion dollar market. Pharmacists view with alarm what they feel is a wholesale attack on their professional domain. State and federal legislators have been bombarded by retail pharmacists and drug store chains to ban physician dispensing.

(Four states have bans on physician dispensing: Massachusetts, Texas, New Hampshire and Utah. Arizona allows dispensing in emergency situations only. Forty-three states permit physician dispensing without restriction.)

The hoopla has brought to the fore numerous ethical and economic arguments and at the least has produced a crisis of public relations for organized medicine. The reason: those who oppose physician dispensing (other than druggists who have an obvious economic interest) do so premised upon the belief that physicians are not to be trusted to deal with the obvious conflict of interest posed when they sell drugs or products that they recommend to their patients. Since these conflicts are not so very different from those that face physicians who order lab tests done in their own office, diagnostic procedures upon equipment sitting in their treatment rooms, or even therapeutic services such as surgery, the widespread distrust of doctors by the public and lawmakers clearly runs deep. "Doctors take advantage of us as it is," seems to be the cry. "Let's not make it any worse by letting them further line their pockets at public expense by

In addition to serving as counsel for numerous physicians and other health care providers, attorney Grad represents a drug repackager. The views he expresses herein are not necessarily those of his clients. Address correspondence to him at PO Box 1417-A44, Alexandria, VA 22313.

What the Virginia Code says about drug dispensing by physicians

The Virginia Code deals with the dispensing of drugs by physicians in three sections:

Section §54-317, the Medical Practices Act, is titled, "What constitutes unprofessional conduct," and is directed to "any practitioner of medicine, osteopathy, chiropractic, podiatry, physical therapy or clinical psychology or any physical therapy assistant." There are 16 entries describing ways in which any of these practitioners "shall be considered guilty of unprofessional conduct," including the following:

(12) Being a practitioner of the healing arts who may lawfully dispense, administer, or prescribe, medicines or drugs, and not being the holder of a certificate of registration to practice pharmacy, engages in selling medicine, drugs, eyeglasses, or medical appliances or devices to persons who are not his own patients, or sells such articles to his own patients either for his own convenience, or for the purpose of supplementing his income; provided, however, that the dispensing of contact lenses by a practitioner to his patients shall not be deemed to be for the practitioner's own convenience or for the purpose of supplementing his income . . .

Section §54-524.34:1 of the Drug Control Act is titled "Licensing of physicians to dispense drug renewals" and reads as follows:

For good cause shown, the Board may grant a license to any physician licensed under the laws of Virginia which license shall authorize such physician to dispense drugs to persons to whom a pharmaceutical service is not reasonably available; such license may be renewed annually in which event the Board shall charge a fee determined by the Board for the issuance of each such license or renewal thereof; such physician or osteopath shall be governed by the regulations of the Board of Pharmacy when applicable.

Section §54-524.53 of the Drug Control Act, titled "Physicians, dentists, and veterinarians supply medicine for patients" reads as follows:

This chapter shall not be construed to interfere with any legally qualified practitioner of medicine, dentistry, osteopathy, chiropody (podiatry), or veterinary medicine, who is not the proprietor of a store for the dispensing or retailing of drugs, or who is not in the employ of such a proprietor, in the compounding of his own prescriptions or the purchase and possession of such drugs and medicines as he may require, or to prevent him from administering or supplying to his patients such medicines as he may deem proper, or from making a charge for such medicines as are not sold to his patients for his own convenience or for the purpose of supplementing his income, nor with the sale by merchants and retail dealers of proprietary medicines as defined in this chapter . . .

selling drugs. At least pharmacists can be trusted."

What is most extraordinary has been the terrible bind that this debate has placed upon the professional associations. After initial opposition, the AMA has endorsed the right of physicians to dispense when accompanied by "appropriate monitoring." It nevertheless opposes the practice in principle. The Medical Society of Virginia likes the present Virginia law, which allows physician dispensing for patient convenience and not as a profit-making enterprise. Both positions seem to espouse "professionalism" by seeking to divorce organized medicine from any appearance of approval of the sale of goods. Neither deals with the underlying and pervasive societal mistrust of doctors.

What are the pros and cons of physician sale of drugs and other medical devices? In favor:

- 1) Patient convenience. The elderly, infirm, handicapped or even mothers and fathers with sick children—all would overcome the usual hassle of filling a prescription at a drug store or making a separate trip to a merchant to buy a prescribed product.
- 2) Patient compliance. A recent study by the AARP showed that a disturbingly high proportion of elderly persons never fill prescriptions given them by doctors. Giving patients drugs rather than script at least gets medicine into their hands. It has also been argued that patient compliance is higher when doctors hand the medicine to patients and explain its use and side effects.
- 3) For those physicians who seek to make a profit on the sale of drugs or devices in states where legal, it is argued that such profits are in reality no different than monies made on the sale of lab tests, diagnostic procedures or even on therapeutic procedures.
- 4) Certain products, when sold by physicians, are more competently delivered to the public, such as hearing aids or glasses. According to an

opinion by the Attorney General on December 16, 1986, it appears that a physician can legally sell such items for the purpose of supplementing income if they are sold, not by the doctor himself but by an independent entity he does not own, e.g., an optical company owned by his wife.

- 5) These laws are competitively unfair. Why, for example, should an optometrist, who is not governed by this statute, be allowed to sell glasses but not an ophthalmologist?

Arguments against:

- 1) Such practices could upset existing industries, such as the pharmacy industry.
- 2) Such practices may cross traditional professional lines, blurring honored distinctions between pharmacists and doctors, opticians and doctors, and so forth.
- 3) Such practices present an inherent conflict of interest and are thus unprofessional.
- 4) Doctors by virtue of the high esteem in which they have historically been held by the public have an "advantage" over patients who might not be able to say No to a proposed sale by a doctor with the same ease as turning down other purveyors of products.

There are several arguments which, in the author's opinion, are either silly or blur the real issues. For example, pharmacists claim that they are important to the system because they catch mistakes made by physicians in prescribing. However, most mistakes made by pharmacists are in misreading doctors' handwriting, or inaccurate or incomplete collection (by writing or phone) of data required to fill a prescription, dangers physician dispensing does away with. Another argument: pharmacy computers pick up drug interactions. This is true, and is certainly an argument for always patronizing a single pharmacy as some drug stores advertise. But physicians should by proper histories pick up drug interactions in the first place, and people using more than one pharmacy are not "protected."

From the author's perspective, the real issue that appears stuck in the craw of organized medicine is the supposed conflict of interest and its effect on the concept of professionalism. Physicians can readily understand the convenience offered by the sale of products as well as the opportunity to lower costs, improve quality and raise patient compliance. Many would welcome the extra income or at least be tolerant of their colleagues who seek it. What upsets many doctors, however, is the perceived loss of professionalism and the conflict of interest.

The conflict is clear and real. The physician has an obligation to make professional judgments determined solely by patient welfare and not the doctor's economic well-being. Yet the sale of drugs or products, if part of a profit-making enterprise, does increase the doctor's welfare. Is the

HARRY G. PLUNKETT, JR.

"This is not merchandise in the usual sense."

The control of the distribution of drugs in Virginia is defined in the Drug Control Act of the Virginia Code. The pharmacists of Virginia have accepted the responsibility of distributing drugs according to the constraints of this act, and they have excelled in the effort. Now there is talk of placing prescription medications in the hands of physicians for distribution.

I have practiced pharmacy in Virginia and now practice medicine in the Norfolk-Virginia Beach area, and I am of the emphatic opinion that physicians will in no manner approach the discipline of drug control that is necessary. Keep in mind that physicians will have to answer to a state inspector as to the whereabouts of five Valium® tablets out of the last 1,000 that have been dispensed. That is a tall order to lay on a busy doctor who is generally at a loss as to the location of his reflex hammer.

With the overwhelming concerns this country faces with widespread abuse of street and designer drugs, why entertain lessening control of prescription drugs? The pharmacist must control these medicines. Given a crowd of professionals, be they lawyers, teachers, doctors, preachers—somewhere in that group is a bad apple. Pharmacists monitor the activities of physicians. This is necessary. We simply cannot do away with this mechanism. It is part of a system that is in place and works.

The complexity of pharmacy increases. In many hospitals today doctors of pharmacy make rounds with physicians to advise appropriate drug selection. Drug incompatibilities and interactions, pharmacokinetics, medication risks in the compromised patient—these are areas of expertise that will become increasingly the pharmacist's responsibility. Physicians need this support.

Arguments for physician dispensing are being made by drug repackagers, whose business is the movement of merchandise. But this is not merchandise in the usual sense. We are discussing the distribution and control of dangerous drugs.

We must be sure we safeguard the safety and health of Virginia citizens. ■

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lure of money strong enough to improperly influence professional judgment?

In the author's opinion, the conflicts are no different than those posed by the sale of laboratory tests, EKGs, or even the choice of (lucrative) surgical rather than nonsurgical treatment modalities. The conflict pales by comparison with that presented the HMO gatekeeper in his decisions with respect to referrals. (In a capitated IPA system, the gatekeeper typically makes more money as a result of fewer referrals to specialists.) The same kinds of conflict exist in the four historical professions of medicine, law, the military, and the ministry: lawyers recommend lawsuits, soldiers recommend war, ministers recommend material sacrifices in aid of religion, and doctors recommend treatments.

A professional has been thought of as one who risks life itself in the service of a profession and the people it serves. While such risks do still exist in certain quarters of medicine, the modern day relevance of this concept has been and will continue to be hotly debated.[2] Perhaps much of this is merely a question of routine practice. Dispensing by physicians was very common a generation ago. A late relative of mine was a general practitioner. He made house calls at night and sold drugs to his patients for their convenience. Money was not a factor; he may or may not have profited from the sale of drugs, that was unimportant to him. He had no quarrels with the local druggists. That was 30 years ago and he was highly professional, held in great esteem by his community and colleagues. Would he today be labelled unprofessional because times have changed, because organized medicine and the pharmacists reached an understanding some 20 odd years ago that doctors should not sell drugs within ten miles of pharmacies?

The roll of professionalism in these days of HMOs, PROs, DRGs and the ascendancy of insurance companies will remain the hot biomedical ethical topic of the next several years. Yesterday's debates on professional advertising are today's debates on doctors as merchandisers and will undoubtedly be tomorrow's controversy over something else. From the lawyer's point of view the question remains: Should we be legislating professionalism? Can we not assume that most doctors are honest and will not compromise professional judgment for the dollar? To answer No, to leave it to lawmakers, who are mostly lawyers, to define professionalism for physicians, would be a most terrible admission of lack of confidence in the integrity of the medical profession. That some physicians are participating in this effort boggles the mind.

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A Year of Action

THIS has been a momentous year for The Medical Society of Virginia. The Society and its leadership have taken bold and decisive steps to ensure that its members are the beneficiaries of the very best, most innovative, and the newest in information and legislation.

In the areas of AIDS and tort reform, your Society has reeived national attention for its efforts. The Long Range Planning Committee held a two-day retreat to review all phases of Society activity, and a number of recommendations from that committee will be forthcoming.

The Auxiliary has instituted a program to work with local legislators. Dr. Fields traveled extensively, speaking to a number of component societies on the advantages of membership in The Medical Society of Virginia and the AMA.

On the national front, William S. Hotchkiss, MD, was installed as President of the American Medical Association, and Dr. W. Leonard Weyl completed a successful two-year term as chairman of the AMA's Southeastern Delegation.

AIDS

One of President Fields' top priorities for the year was the formation of a new committee to examine ways in which the Society might keep the membership updated on AIDS. Under the direction of the chairman, Dr. Donald M. Poretz, the committee compiled a notebook of information which was distributed to physicians throughout Virginia, 11,000 in all. In order to keep the manual current, updates will be forwarded as new information becomes available.

Fairfax Hospital Visitation

In an effort to further attune congressional staffers to the impact of federal legislation and regulations on the everyday delivery of health care, the Society instituted a program to bring congressional aides of the Virginia delegation to Fairfax Hospital for a day-long briefing and to visit various hospital units under the joint chairmanship of Drs. Glenn B. Updike, Jr., and C. Barrie Cook. The program was judged a tremendous success by all. The AMA encourages this type of program and was advised of our successful efforts.

Membership

Another matter of significance is unification with the AMA, which continues to provoke comments both pro and con. The figures listed below reflect 19½ months of membership activity.

January 1, 1986, to August 14, 1987

Resigned due to unification	247
Resigned, no reason given	151
Deaths	58
Dropped for nonpayment of dues	665
Members with 1987 dues outstanding	328
New members	402

Component Society Staff

For the first time in a number of years, staff officers of component medical societies gathered at MSV headquarters for a one-day meeting. They provided input from the local level on such items as unified membership, HB 1216 (the injured infants act that includes an assessment of all physicians in the state), and tort reform in general. An instructive, congenial time was had by all, and another meeting was scheduled for Spring 1988.

Drug Dispensing

As MSV President, Dr. Fields was asked to testify before the House Energy and Commerce Committee's Subcommittee on Health and the Environment. The issue, which is still much in the limelight, was physicians dispensing drugs from their offices. Dr. Fields provided the subcommittee with new information regarding the Virginia statute as well as the position of the Society.

Tort Reform

Virginia physicians must be congratulated for the many accomplishments in tort reform during the 1987 session of the General Assembly. Working from the mandate of the Society's 1986 House of Delegates, our Professional Liability Committee developed legislation to address the problem of professional liability insurance for obstetricians, the JUA, and protection for physicians dispensing DPT vaccine. In cooperation with the Virginians for Law Reform and supported by a strong effort on the part of many Society members who worked tirelessly making calls, writing letters and visiting members of the General Assembly, the committee was instrumental in getting Society-sponsored and other tort reform legislation passed. Our efforts in this regard, especially with the injured infants act, are unprecedented nationally, and many state societies have requested information and guidance for their own tort reform programs.

As part of the General Assembly effort, Dr. Frederick K. McCune and the Public Relations Committee provided quick response to the many media inquiries with reference to tort reform. Press coverage was excellent, and our Director of Public Relations and Communications is still fielding inquiries and distributing information.

I have only touched the surface of the involvement of the leadership, committees and staff for the past year. The committee reports show evidence of the dedication and hard work, and I encourage all of you to read them.

No less important has been the vigorous participation of the many, many members who have contributed untold time and interest and input to this year of action. They are what this Society is all about.

It is an honor and a privilege to serve such a vital organization.

JAMES L. MOORE, JR.,
Executive Vice President,
The Medical Society of Virginia

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Aging

The Committee on Aging was reactivated in May 1986 in order to facilitate dailogue with the Governor's Advisory Board on Aging and other organizations which might have a comparable agenda for consideration.

Since its appointment the committee has met four times, three of these being joint meetings with the Health Issues Committee of the Advisory Board. The two groups have established a comfortable working relationship and plan future joint meetings on a wide range of topics.

The chairman also was invited to testify before the Commission on Alzheimer's Disease and Related Disorders on October 8, 1986.

The committee has stimulated a pilot program in the Albemarle County Medical Society whereby the Jefferson Area Board for Aging certifies the indigent status of Medicare patients, in which case the physicians of the Society have agreed to accept assignment of Medicare benefits on a voluntary basis. Recommendations stemming from this experience will be presented to the House of Delegates in 1988.

John A. Owen, Jr., MD,
Chairman

AIDS

Recommendations

1. That The Medical Society of Virginia oppose mandatory HIV antibody screening upon admission to a hospital.

The use of standard blood/body fluid precautions is an economically prudent alternative to the screening of all admitted patients as a method of infection control.

2. That the Society oppose routine HIV antibody testing in conjunction with the issuance of marriage licenses.

Mass premartial HIV antibody testing is both costly and unwarranted. Personnel would need to be hired and trained to administer the test and counsel all individuals about the meaning of the results.

3. That the Society endorse HIV antibody testing in prisons only when ordered by a physician on a case-by-case basis.

The cost of screening all prisoners is not feasible and therefore unwarranted. Separate facilities would have to be maintained at great expense for all persons with positive test results.

4. That the Society support the safety measures and guidelines endorsed by the Center for Disease Control, the AMA, the American Hospital Association, and the Surgeon General for all health care workers coming into contact with potentially HIV-infected patients.

The routine use of blood/body fluid precautions endorsed by these organizations is the best protection for all hospital staff against potential infection.

5. That the Society endorse guidelines for reporting only those patients that fit the current or future definition of AIDS.

Patients should be reported only if they meet the CDC's criteria for the disease.

General

The Committee on AIDS was formed this year to gather and monitor new developments on the disease and provide a greater awareness to physicians and the public.

One of the key projects of the committee was the publication and distribution of the *AIDS Manual for Virginia Physicians*. This reference guidebook, published in cooperation with the Virginia State Department of Health, was sent to over 11,000 physicians in the commonwealth and every state medical association in the country. The manual has met with high praise, and a copy was presented to Surgeon General Everett Koop. Updates to the manual are planned as new developments with the disease occur.

The committee will publish more information on the drug AZT to make Virginia physicians aware of its potentially toxic side effects. Committee members agreed that physicians should be aware that studies are in progress concerning the use of AZT on HIV-positive patients who are asymptomatic.

Donald M. Poretz, MD,
Chairman

Alternative Delivery Systems

The feasibility of The Medical Society of Virginia establishing a statewide alternate delivery system (ADS), such as an HMO or IPA, was considered by the Society's Council two years ago and rejected. Rather, the Alternative Delivery Systems Committee was established to consider various aspects of the multitude of activities of this nature throughout the state and to serve as a clearing house for information to, and concerns of, the MSV membership.

To date, no grievances between physicians and ADSs have been forwarded to the committee. However, the committee is aware that groups of physicians in the Hampton Roads area and in Lynchburg have formally organized and obtained legal counsel in order to deal with institu-

tional providers or purchasers of health care. In each instance these groups have stressed the great benefit they have obtained from their professional counsel. In Northern Virginia physicians have formed a group to purchase and provide legal evaluation and advice regarding health care contracts. Additionally, a joint venture between a major Northern Virginia hospital system and physicians active on its staff is forming to deal with HMOs and PPOs. In this regard, the Board of Trustees of the AMA has announced that a contract evaluation service will soon be operational through that body. The committee plans to serve as a conduit to, and an interested evaluator of, this much needed activity.

Leon I. Block, MD,
Chairman

AMA Delegates

The 142nd Annual Meeting of the American Medical Association was held in June, and your Virginia representatives of ten delegates and alternates attended. In addition, the President, President Elect and Speaker of the House met with the delegation, as well as representatives from the hospital medical staff section and student medical societies.

The installation as AMA President of Dr. William S. Hotchkiss of Chesapeake made this a special meeting for Virginians. Dr. Hotchkiss had previously served for eight years as a member of the Board of Trustees, as Secretary-Treasurer and as Vice-Chairman of the Board. More AMA presidents have been elected from Virginia than any other state—two within the last ten years.

This was probably the busiest annual meeting in recent years. The House addressed many major issues during the five-day session, including AIDS, a foreign medical graduate section, dispensing by physicians, the Health Policy Agenda for the American People, PROs, physician DRGs, the Omnibus Budget Reconciliation Act of 1986, and MAAC regulations. A report of the delegates' actions at the meeting appeared in the August issue of VIRGINIA MEDICAL.

This is my last report as chairman of the delegation, having been a member since 1972 and chairman for ten years. These years have been very rewarding for me. I hope that in some small way they have been constructive for the Society, too.

Michael A. Puzak, MD,
Chairman

Auxiliary Advisory

As physicians' advocates, the members of the Auxiliary are The Medical Society of Virginia's allies. They have a clear understanding of the problems facing the medical profession and of what they need to do to make the greatest impact in their communities on our behalf.

Madeline Sly, Auxiliary President, successfuly led the group through an internal restructuring and introduced a regional concept for interim meetings and workshops, resulting in major accomplishments. A few of them are listed here.

1. A statewide membership campaign resulted in a 105-member increase in 1987. First Vice President Heidi Guerrero reports that MSVA membership reached an all-time high with 2,276 members. Three national membership awards were presented to Virginia at the AMA Auxiliary convention for outstanding achievement in membership recruitment and for organizing two auxiliaries, in Chesapeake and Northern Virginia.

2. In addition to scheduling members for daily coverage during the General Assembly session, the Auxiliary teamed up with the Society and the Virginians for Law Reform for the annual Legislative Day. In spite of the worst snowstorm in Richmond's history, the day was a big success. At the peak of the Society's tort reform campaign the MSVA produced over 12,000 signatures on tort reform petitions.

3. Publication and distribution of the *Medical Professional Liability Handbook* became a reality thanks to the perserverance of Past President Barbara Vick and the author, Sue Mellis Ross. This joint MSV-MSVA effort provides members with a better understanding of the intricacies of malpractice litigation.

4. AMA-ERF checks were presented to the deans of the three Virginia medical schools: to the University of Virginia, $15,405; to the Medical College of Virginia, $21,741; to Eastern Virginia Medical School, $12,441. According to Kay Reardon, AMA-ERF contributions from Virginia for 1987 totalled $41,472.

Members of the Auxiliary are truly the Society's good-will ambassadors. As the Auxiliary celebrates its 65th anniversary, the Advisory Committee applauds an outstanding year of growth and achievement.

H. Alan Bigley, Jr., MD,
Chairman

Bylaws

Recommendation

The Bylaws Committee recommends that the Bylaws be amended by deleting the first sentence of Section 6, Article IX, and substituting the following: "The Committee on Ethics shall consist of six members, one of whom shall be a member of a component student society. Each member of the committee shall serve for a term of three years, except for the representative of the component student society, who shall serve for a term of one year."

General

The committee was asked to consider 1) the recommendation of the Ethics Committee to amend Section 6 as above and 2) a matter referred to the committee by Council regarding implementation of a policy for reduction of dues for physicians who are under 65 years of age and fully retired and payment of 50% dues by physicians who work one to 20 hours a week and are between the ages of 65 and 70. A report of the committee's consideration of the latter item will be included in the delegates' packet.

Robert L.A. Keeley, MD,
Chairman

Cancer

Recommendation

That The Medical Society of Virginia endorse the establishment of a population-based tumor (cancer) registry within the State Department of Health, thereby making cancer reportable by law.

The committee renewed its firm support of continued efforts to enhance the effectiveness of the Virginia Tumor Registry. It is believed that 75% of new cancers diagnosed in the state are now recorded in the registry. This represents a great stride forward in one decade but is still not adequate, in the committee's opinion. Development of a modern, computerized registry is now contemplated, and the committee endorses its establishment.

General

Meetings of the Cancer Committee were held on March 25 and September 23.

Following through on the acceptance by The Medical Society of Virginia of the report of the Task Force on Diagnostic Imaging for Detection of Early Breast Cancer, the committee endorsed the need for promotion of greater public

awareness of early diagnosis through newspapers and received with appreciation assurances of a positive approach to financing of diagnostic screening by Blue Cross/Blue Shield. The committee will continue cooperative activities with the Professional Education Committee of the American Cancer Society, Virginia Division, in promoting the use of screening mammography and its financing by third-party payers.

Robert J. Faulconer, MD,
Chairman

Editorial Board

VIRGINIA MEDICAL was awarded a Special Award in the category of state medical journals in the 12th annual medical journalism competition conducted by Sandoz Pharmaceuticals. It was the fourth time the journal has carried off honors in this competition; it won first prize in 1977 and 1981 and a Special Award in 1983.

The year has been a good one for VIRGINIA MEDICAL. We are grateful to our contributors and supporters and continue to be blessed with an excellent Editorial Board and a small but outstanding staff.

Edwin L. Kendig, Jr., MD,
Editor

Education

With the able and dedicated assistance of Dr. Paul Mazmanian, Mrs. Pamela Mazmanian and Ms. Evelyn Stockmar, the Continuing Medical Education Committee has overseen the implementation of its mandate.

1. The Medical Society of Virginia received continued recognition as a continuing medical education accrediting body for the Commonwealth of Virginia for a period of six years with the provision that we provide the Accreditation Council for Continuing Medical Education (ACCME) with an interim report addressing 11 areas cited by the reviewers and the Committee on Review and Recognition as problematic. On October 22, 1986, The Medical Society of Virginia interim report addressing those 11 areas was "accepted as submitted" and cited as exemplary.

2. A manual of the revised policies and procedures on accreditation has been developed and all state accredited organizations have received a *Medical Society of Virginia Policy and Procedure Manual for State Accredited Organizations* as a CME reference.

3. A newly revised information booklet, the *Virginia Physician's Recognition Award and Membership in The Medical Society of Virginia,* and an application for the MSV-PRA and CME membership maintenance report have been published and distributed.

4. The *Virginia Handbook on Professional Medical Liability* has been published and distributed.

5. The CME office continues to maintain a registry for programs and CME activities provided around the state.

6. CME reports from alphabetical Group II members were due this year. Of the 1,520 members in Group II, there remain 35 who have not complied as of August 5, 1987.

7. There are two hospitals due for reaccreditation surveys in late 1987.

J. Albert Hagy, MD,
Chairman

ACCREDITED FOR CATEGORY I CME

Organizations:
American Cancer Society, Virginia Division
Eastern Virginia Medical School
Medical College of Virginia/VCU
Northern Virginia Consortium for CME
University of Virginia School of Medicine
Virginia State Health Department

Hospitals:
Community Hospital of Roanoke Valley
Fairfax Hospital Association
Lewis-Gale Consortium, Salem
Memorial Hospital, Danville
Potomac Hospital, Woodbridge
Riverside Hospital, Newport News
Roanoke Memorial Hospital
Virginia Beach General Hospital
Winchester Memorial Hospital

Ethics

The Ethics Committee met on March 26 and again on August 7 at MSV headquarters with a full committee on each occasion. These were routine meetings without any specific, unusual problems to be considered.

We exchanged opinions on such subjects as professional consultation etiquette, fradulent advertising by pharmacists and suppliers, and ethical problems raised by the introduction of new products. We forwarded to Congress a resolution regarding the ability to mediate complaints about doctors' fees. We delved into the question of second opinions, especially second surgical opinions, and mediated several personal complaint cases.

Continuing friction between groups of MSV members and the MSVRO continues to cast a low glow at our meetings, and we hope to moderate these complaints.

We have discussed problems concerning the relationship between physicians and their patients with AIDS. We know this will test the doctor-patient relationship and go to the very heart of medical ethics. The committee hopes all MSV members will consider this problem carefully, especially those who work in emergency departments.

The committee feels that most Medical Society of Virginia members instinctively react to their medical problems and dilemmas in a very ethical way. We congratulate them and urge them to keep up the good work.

Gervas S. Taylor, Jr., MD,
Chairman

Highway Safety

Recommendation

That The Medical Society of Virginia support legislation for immunity for physicians who in good faith report a patient to the Department of Motor Vehicles when there is a medical condition which, in the opinion of those physicians, is incompatible with the safe operation of a motor vehicle.

The Highway Safety Committee is resubmitting this recommendation to make certain that those physicians who feel a need to report impaired drivers will be protected. The members emphasize that they oppose mandatory reporting and that supporting this legislation would not expose physicians to greater liability.

General

The committee was very active in its support of highway safety legislation at the 1987 Virginia General Assembly. The mandatory seat belt bill and drug-impaired driver legislation were key issues endorsed by the committee and passed by the legislature.

The members plan to obtain additional information about the status of guards and other safety equipment found on school buses. The need for increased studies and implementation of new safety features for these buses was stressed.

The committee expressed continued

support for the concept of pedestrian legislation in the upcoming General Assembly.

Carol S. Shapiro, MD,
Chairman

Insurance

Most of the insurance committee's activities are devoted to the health insurance plans endorsed by The Medical Society of Virginia. Competitive proposals are now routinely sought for the major health insurance plan currently offered through Virginia Blue Cross/Blue Shield to assure the best possible rates.

John P. Pearl and Associates is our insurance agent of record. The Society endorses fifteen Pearl insurance products relating mostly to health, disability, practice overhead expense, and life insurance.

Professional liability insurance is a major concern of the committee and is on the agenda at all meetings.

Ira D. Godwin, MD,
Chairman

Legislative

Recommendations

1. That the position of The Medical Society of Virginia regarding the sale of drugs by physicians be clearly stated and the statement be disseminated to the physicians of Virginia.

In the next session of the General Assembly the State Board of Medicine is to propose legislation restricting the sale of drugs by physicians. The proposal permits the sale of drugs in an emergency when no pharmacy is available.

2. That necessary action be taken to exempt retirement plans from bankruptcy and other creditor collection proceedings and to pursue such amendments to federal and state laws as needed to accomplish this objective.

The Board of Trustees of the AMA is concerned about protecting pension plan funds under the bankruptcy laws.

3. That The Medical Society of Virginia oppose the licensure of respiratory therapists.

The Board of Medicine has recommended that respiratory therapists be licensed. The Society's Executive Committee opposes this position and will work with the Virginia Hospital Association in opposition.

4. That The Medical Society of Virginia oppose any efforts toward licensure of physical therapists.

Physical therapists now need physician referral to evaluate and treat.

General

The Legislative Committee addresses the issues related to the actions of the General Assembly of the Commonwealth of Virginia. During the 1987 session the committee assisted the Society's Professional Liability Committee to produce meaningful tort reform, which was far and away the primary concern of MSV members. Legislation adopted by the General Assembly during the session included reduction in the statute of limitations for claims by minors from a maximum 20 years to ten years; adoption of a rule permitting sanctions for frivolous suits and motions; broadened immunity for obstetricians who render care to the indigent; increased disclosure of underwriting results and reliance on Virginia data by insurance companies; elimination of most exemptions from jury service; capping of punitive damages at $350,000; broadened protection for directors and officers of corporations; reduced liability for vaccine-related injuries; less liability exposure in the Joint Underwriting Association; and, of greatest importance, passage of legislation establishing a special fund for reimbursement of newborns who are severely injured during delivery.

William W. S. Butler III, MD,
Chairman

Maternal Health

Recommendation

The Maternal Health Committee recommends that the following statement endorsed by the committee be sent to all hospitals with obstetrical services in Virginia:

"Several recent reports to The Medical Society of Virginia Committee on Maternal Health indicate that intravenous bolus pitocin is being used in some hospitals in Virginia following the delivery of the baby and placenta.

"Complications associated with the intravenous route of undiluted pitocin include acute decrease in mean arterial pressure, decrease in total peripheral resistance and compensatory rapid increase of 50% in cardiac output. Although many parturients may be able to compensate for acute profound hypotension, others will develop organ damage or cardiac arrest.

"Therefore it is recommended that pitocin should not be administered in an undiluted intravenous bolus fashion."

General

The committee met on July 16. The Society's Counsel, Allen C. Goolsby, discussed the injured infants act. An update on maternal and child health activities in Virginia was given by Dr. Alice Linyear, director of the Division of Maternal and Child Health. There were ten maternal deaths in the state in 1986. Six were due to nonmedical causes (three auto accidents, two homicides and one drowning); the other four were summarized by Dr. Peter Van Dorsten, of the Medical College of Virginia's Ob/Gyn Department.

Lucien W. Roberts, MD,
Chairman

Medicine/Business Coalition

The Medicine/Business Coalition Committee met during the year to consider several matters referred to it and to explore activities of and responses to alternative health care delivery systems.

In Lynchburg, an IPA developed by area physicians has assumed a competitive position capable of negotiating contracts with local employers as well as health insurance companies such as Blue Cross/Blue Shield. Similar corporate organizations have been developed in the Newport News-Hampton-Norfolk area. The committee is to recommend to Council that the Society provide information to interested components and groups of doctors on the techniques of organizing such corporations.

Two bills under consideration by the New Jersey legislature were reviewed by the committee. One would allow an HMO enrollee to be treated by a provider of choice, not necessarily a participating physician, without losing any benefits of the plan. The second would allow an HMO enrollee to terminate membership under certain circumstances and enroll in another plan without incurring additional costs. The committee referred these bills to the Executive Committee for study and evaluation as possible legislative goals for the Society.

The committee adopted as a goal the development of standard preadmission techniques for all carriers.

Russell D. Evett, MD,
Chairman

Membership

The Membership Committee had an active year attempting to enlist new members for The Medical Society of Virginia. As of July 31, 1987, the mem-

bership stood at 6,003, with 150 new members added during the previous year and 119 members lost. Of the latter number, 40 resigned over the unification issue; the rest were resignations with no reason given, deaths, or physicians moving out of the area.

The extraordinarily vigorous program to recruit new members was directed at the 800 physicians who are members of local medical societies but not of The Medical Society of Virginia; this did not include anyone who had resigned over the unification issue. The committee and presidents of the component societies worked diligently through the first four months of this year, but the efforts were largely unsuccessful. Only 56 physicians of the targeted 800 expressed an interest in joining, and of that number only 32 actually paid new dues. Our goal had been to recruit 200 new members.

The funds for recruitment have been borne largely by the AMA, but this amount must be weighed in terms of results. The committee had planned a second campaign in 1988 geared toward the 2,000+ physicians who are not members of their local societies, but with such a low return in the 1987 campaign from those committed locally to organized medicine, approaching the less involved group carries a high probability of failure.

Both the committee and the Council have indicated an interest in pursuing a close liaison with the Old Dominion Medical Society. We have met with the officers of that society and hope during the coming year to come to an understanding whereby the members of the two societies can become mutually involved.

The Membership Committee is investigating the feasibility of a special dues category for physicians engaged in full-time academic practice. The deans of the medical schools will help us explore this possibility.

This has been a difficult year for the committee, but we continue to work toward the goal of having The Medical Society of Virginia representing all the physicians in the state.

J. H. Hollingsworth, MD,
Chairman

MSVRO Oversight

The MSVRO Oversight Committee acts as the physician's advocate in overseeing the Medical Society of Review Organization. An uneventful meeting was held at Society headquarters on March 25 to discuss any major complaints or significant issues. Upon adjournment a visit was made to MSVRO headquarters, where Dr. Eugene Poutasse, medical director, presented a most informative program. We were familiarized with the PRO structure, activities, procedures, personnel, problems, and facilities. There appeared to be a conscientious effort on the part of the MSVRO to implement the recommendations adopted by The Medical Society of Virginia's House of Delegates at the 1986 annual meeting in Williamsburg. The committee members were in agreement that definite improvement exists in the relationship between the Society, the practicing physician and the MSVRO.

There are no current recommendations.

William H. Sipe, MD,
Chairman

Mental Health

A number of issues with regard to the care of psychiatric patients are noted: Public funds are badly needed for the care of the homeless in the state, particularly in the urban areas; many of them are mentally ill. Also, housing is needed for the mentally ill following discharge from public mental hospitals. In conjunction with this need, however, there should be a moratorium on the closing of any further beds for public mental institutions serving indigent populations, and money should be made available to local communities for the purchase of psychiatric care for public patients in private facilities in a manner that allows some patient choice of institution and physician.

It is further noted that there has been a tremendous growth in the admission of psychiatric patients to private facilities with acute exacerbation of chronic conditions. These patients are neither hospitalized in public mental hospitals nor provided therapeutic housing with adequate controls of their behavior in order to maintain their treatment plans following discharge from public hospitals. Catastrophic coverage as defined by federal, state and local government should include the catastrophically ill mental patient, including those addicted to various substances.

In those areas of the state which have, after Chapter 10 boards, signed exclusive contracts with certain physicians for the care of crisis patients, those patients should still be allowed to elect to continue in treatment with physicians and institutions that have treated them previously and to elect their choice of physician-institution at their commitment hearings or thereafter, without having their freedom of choice restricted by a Chapter 10 board or its subcontractor when their insurance requires no such restriction.

It is noted that the Champus "experiment" for manic psychiatric care in some areas of the state has proved excessively burdensome, requiring patients in some instances to be transferred from emergency rooms to intake centers, creating financial pressures for outpatient care by reducing payment for inpatient care severely and requiring enormous reports to justify treatment.

In general, it is noted that the administrative burden for justifying treatment in psychiatric practice has increased enormously; also, the cost shifting of that burden and the failure of insurance companies to assume the cost burden of this tremendous increase in volume of telephone consultation and written reports is evident.

The Mental Health Committee continues to invite members of The Medical Society of Virginia to bring to its attention issues relevant to the care of the psychiatric patient.

James A. Shield, Jr., MD,
Chairman

Pharmacy

Recommendation

It is recommended that The Medical Society of Virginia's present position with regard to physicians dispensing drugs be reaffirmed.

During the past year the Pharmacy Committee has been actively involved in presenting and supporting this position, which is in opposition to the routine dispensing of drugs by physcians for profit and which was adopted by the House of Delegates and recently reaffirmed by Council. As presented before a hearing held by the State Board of Medicine, which is studying this issue, the Society is also opposed to any alteration of the Virginia statute with regard to dispensing. The Medical Practices Act of the Virginia Code defines as unprofessional conduct the selling of medicines for the supplement of income or the convenience of the physician. A major concern of the Pharmacy Committee is that alteration of the present statute will adversely affect the quality of patient care in Virginia. The relationship of physician, pharmacist and patient affords the

best possible care in respect to prescription drugs.

John Boniface, Jr., MD,
Chairman

Professional Liability

With the help and support of doctors from all over Virginia, the Professional Liability Committee mounted a tort reform campaign at the 1987 General Assembly that achieved the five specific goals mandated by The Medical Society of Virginia's House of Delegates at last year's annual meeting:

1. Filed an amicus brief with the Virginia Supreme Court in what is expected to be the first case to consider the million dollar cap on total awards.
2. Worked with the Virginians for Law Reform to achieve a decrease in the statute of limitations, sanctions on attorneys who file frivolous suits, a decrease in jury duty exemptions, "Good Samaritan" status for doctors giving emergency care to obstetrical patients, $350,000 cap on punitive damages, and limits on liability of corporate officers.
3. Created and effected passage of a bill giving immunity from liability to physicians administering vaccines.
4. Created and effected passage of a bill easing financial requirements of Joint Underwriting Association policies.
5. Created and effected passage of the Virginia Birth-Related Neurological Injury Compensation Act. This legislation, the first of its kind in the nation, was designed to take the most severely brain-damaged infants out of the tort system and compensate them in a manner similar to Workman's Compensation.

The act became law on July 1. Shortly thereafter Gov. Gerald L. Baliles appointed to the board charged with directing the act's inception and management Dr. C. M. Kinloch Nelson, representing The Medical Society of Virginia, and Dr. L. Daniel Crooks, representing the Virginia Obstetrical/Gynecological Society.

To examine ways in which the act can be improved, MSV President Richard L. Fields appointed an MSV Task Force comprised of nine physicians from the pertinent specialties, a hospital administrator, an underwriter, and two nonprovider members. MSV President-Elect Glenn B. Updike, Jr., an obstetrician, is chairman.

To be sure MSV members understand fully the implications of this precedent-setting act, the committee has produced a short video tape explaining what happened at the General Assembly, and why. It is being shown to component societies and other physician groups around the state.

Senator Parkerson's committee continues to consider the liability situation in Virginia, and your Professional Liability Committee monitors those meetings and works fraternally with the legislators to identify further areas for tort reform.

The committee has also been working closely with Commissioner C. M. G. Buttery's office at the State Health Department to develop a plan that will ensure quality care for indigent obstetrical patients. Dr. David L. Montague leads that effort.

The committee is conferring with the Society's leadership and with legislators statewide and is listening attentively to the suggestions of MSV members for the 1988 General Assembly.

Ronald K. Davis, MD,
Chairman

Professional Liability Review

This new committee was started in January of this year. Its purpose is to assist members of The Medical Society of Virginia who are having difficulty finding adequate professional liability insurance. Members include Drs. L. Daniel Crooks, Jr., Russell D. Evett, Henry R. Ivey, and Robert L. White. Any physician who wishes to utilize the services of the committee may contact any of the committee members. Each of the major writers of professional liability insurance in Virginia covers at least one of the members of the committee.

Ira D. Godwin, MD,
Chairman

Public Relations

The Public Relations Committee's largest project during the past year was the Society's communications and media relations during the massive tort reform campaign. Committee members and staff assistants worked directly with the Professional Liability Committee and lobbyists. Prior to the convening of the General Assembly we were instrumental in preparing and distributing liability information packets to physicians expressing interest in tort reform. During the Assembly we were able to provide updates to that group, as well as suggestions to those wishing guidance on points to be made to the legislators in support of MSV efforts.

Under the joint auspices of the Public Relations and the Professional Liability Committees, the Society provided both print and electronic media with information and physicians to interview and also held a press conference to announce introduction of the injured infants act.

Our committee was pleased to provide support for the Auxiliary's new legislative contact program. Under Mrs. Madeline Sly's guidance, the Auxiliary held a brunch in Tidewater for their state senators and delegates and their spouses and also their congressmen. We recommended, and the Council approved, MSV funding to get the program started and also worked closely with Mrs. Sly to develop the invitation, program, and other materials used at the brunch. The program was a great success.

1987 has been a busy but rewarding year for the Public Relations Committee and we are looking forward to more of the same in the year to come. The committee wishes to thank the entire Ed DeBolt team, especially Carole Cones, and staff member Jonathan Perry for their tireless efforts to make all this possible.

The committee has no recommendations.

Frederick K. McCune, MD,
Chairman

Rehabilitation

During the past year the Rehabilitation Committee has continued both individually and collectively its primary role of providing advice and recommendations to the Virginia Department of Rehabilitative Services in regard to policies, procedures and appropriate fees for medical services provided by the department to handicapped individuals in the state.

The committee met on May 17 with 14 members in attendance and ten members of the department's staff also present. Altamont Dickerson, Jr., the department's commissioner, briefed the committee on current funding and described the innovative programs developed to serve a broader population of disabled groups.

The committee discussed fee determinations, recommending that Medicare allowances be used as a guide in establishing appropriate fees for department reimbursement, and reaffirmed its previous recommendation that surgical procedures for the management of morbid obesity are not appropriate for depart-

ment funding. The committee discussed the utilization of pain control clinics and programs and recommended that the department undertake some pilot studies at selected clinics and programs which are well-supervised, multidisciplinary and specify initial comprehensive evaluation and program planning. The committee considered heart and liver transplantation, as well as surgical procedures for the treatment of temperomandibular joint dysfunction syndrome, and concluded that these were not appropriate services for the department to provide. The committee endorsed the department's current policies regarding the provision of services to individuals with AIDS.

There are no recommendations.

Alexander McCausland, MD,
Chairman

Rural Health

Recommendation

1. That the physicians in each locality continue to promote either the development of voluntarily staffed free clinics or actively support the existing free clinics which provide medical care for the population not covered by Medicaid or lacking the ability to pay for care.

Many such clinics are presently active in different areas of the state, and the committee members from areas not so served were encouraged to develop such clinics.

2. That The Medical Society of Virginia increase its financial support of the state 4H Club from $500 to $1,000 per year.

During the Finance Committee's meeting in 1986, support was reduced from $1800 to $500 due to budget limitations. The members of the Rural Health Committee feel the 4H Club is very worthwhile in the development of the youth of Virginia and should be well supported by the Society.

General

This committee met by conference call on July 30 with 90% of members attending. In addition to the recommendations above, other topics of discussion included the negative feelings expressed toward the Society by many nonmembers in rural areas. Efforts are to be made to change this image through future contacts with physicians in each area of the state.

Also discussed were problems experienced by rural physicians in dealing with the MSVRO censures. Actions taken were to insure better communication between the MSVRO and physicians who feel the sanctioning process should be changed so that physicians are notified at the second level of the process.

J. L. Patterson, Jr., MD,
Chairman

Scholarship

Recommendation

That the House of Delegates instruct the MSV Council to develop mechanisms for funding and implementation of the previously approved (11-9-85) Student Loan Program.

Following lengthy discussions, the Scholarship Committee recommended to the House in November 1984 that a medical student loan fund similar to that of the Missouri State Medical Association be adopted, including a $20 per-MSV-member assessment to fund the program. The House upon recommendation of the reference committee referred the matter back to the Scholarship Committee for a more detailed report. That report was provided to, and adopted by, the House at its 1985 session. The House was led to believe that there were sufficient funds "to initiate the loan program" and "was advised that the board of the Medical Society of Virginia Foundation has decided to begin making student loans."

When by March 1987 the loan program had still not been initiated, the chairman of the Scholarship Committee made further inquiry of the Society's Executive Committee. The response of April 29, 1987, stated in part: "It was the feeling of the Executive Committee that the funds available in the Foundation were not adequate to institute a loan program at the present time." The response further stated: "The Executive Committee asked me to relay their personal thanks to you for all of the hard work you and your committee have done in the development of this program. All of us sincerely hope that there will be a means to get this program underway sometime in the future."

William D. Mayer, MD,
Chairman

Sheriffs' Advisory

Recommendation

The Sheriffs' Advisory Committee recommends that continuing efforts be made by this committee to evaluate and advise the proper health standards and insure their implementation in the regional jails throughout the state.

There is a trend to combining many smaller jails into regional jail systems, which will require ongoing attention from this committee to see that the expertise of the larger jail systems, such as those at Virginia Beach, Richmond and Fairfax, are emulated in the operation of the new regional systems. Communicable disease and drug problems require increased attention from this committee. Collaboration with the MSV Committees on AIDS, Emergency Medicine, Grievance, Mental Health, Pharmacy, Professional Liability, Rehabilitation and Rural Health should be developed.

Discussion

The chairman has communicated by letter and telephone with the sheriffs in charge of the jail systems in the metropolitan areas of Virginia Beach, Richmond and Fairfax.

The committee met on May 16 as guests of the Fairfax County Adult Retention Center. We were highly impressed with the housing, food and morale of inmates and keepers in this jail. We engaged in wide-ranging discussions focusing on the problems of recidivism due largely to alcohol and drug abuse; some 90% of the inmates committed their crimes under the influence of a chemical substance. How to deter these abusers should remain the major focus of the committee's efforts.

Ray A. Moore, Jr., MD,
Chairman

State Bar Liaison

No recommendations were formulated during the joint meeting of the Liaison Committee from The Medical Society of Virginia and the Medico-Legal Liaison Committee of the Virginia State Bar. The meeting was held on April 23 in Richmond. In attendance in addition to the members of both committees were Michael Rost, acting excecutive director of the State Bar; Dr. Richard L. Fields, MSV President; and James L. Moore, MSV Executive Vice President.

The main topic of discussion centered around the question of due process. John Grad of the State Bar brought the committee up to date on some of the new federal legislation regarding due process, with consideration of its rather extensive impact on physicians, hospitals and PROs. The consensus was that the legislation is complex, sweeping, ill-defined and largely repetitious of existing laws.

The committees agreed that editorial-type articles should be written for publication to help clarify and place on record different perspectives about this controversial subject. Consideration was given to the advisability of the joint committee preparing a pamphlet to explain and give some direction on how to comply with the law.

The issue of ex parte contracts with expert witnesses was raised, but the committees agreed that it should be addressed by the Ethics Committee of the State Bar.

The booklet prepared by the joint committee, *Principles of Cooperation*, continues to be very helpful and has served to settle many medico-legal questions, especially those of physicians.

Claude P. Sherman, MD.
Chairman

VaMPAC

VaMPAC experienced the highest PAC 250 and sustaining membership in its 25-year history as well as its best financial year, thanks to medicine's support.

The VaMPAC board consists of three members from each council district, plus the five officers. Board members are nominated by each council district caucus to serve a 1-, 2-, or 3-year term. VaMPAC *is* responsive to the membership of The Medical Society of Virginia.

VaMPAC was instrumental in helping the Society's successful tort reform legislation in the 1987 General Assembly. Doug Douglas needs to be commended for all his efforts in behalf of the Society.

In January VaMPAC held a reception at the Commonwealth Club honoring the leadership of the General Assembly the evening before it convened. In April VaMPAC held a reception for all the legislators and their aides the evening before the veto session.

VaMPAC, a bipartisan organization, is now involved in the 140-seat 1987 state election cycle. We support candidates who are friendly to medicine or at least are willing to listen to medicine's issues and concerns. Thus VaMPAC continues to help safeguard our profession.

Gerald C. Burnett, MD,
Chairman

Vanguard

The Vanguard Committee's year got off to a busy start with a breakfast meeting prior to the January meeting of Council. We were not only briefed on federal legislation, but Dr. Ron Davis, chairman of The Medical Society of Virginia's Professional Liability Committee, presented a briefing on the Society's tort reform efforts at the General Assembly and ways we could help. Feeling that this campaign was vital to the interests of the Society and could set a national precedent, the committee agreed to help. Committee members were very active in helping lobby the General Assembly for this program and are proud to have been a part of such a successful effort.

On the federal scene, we closely monitored the many health-related initiatives of interest to Virginia physicians, maintaining the committee's regular contact with Virginia's congressional delegation. In addition, we were active in lobbying specific initiatives, such as DRGs for radiologists, anesthesiologists and pathologists. Many of our members also made integral contributions to the MSV/AMA Key Contact Program, contacting congressional offices about significant issues.

J. Thomas Hulvey, MD,
Chairman

Sports Medicine

Recommendation

That The Medical Society of Virginia sponsor legislation to provide for the licensure of certified athletic trainers in educational, professional and club environments.

The committee believes that state licensure would ensure high-quality athletic trainers in the commonwealth.

The committee's members were in favor of endorsing the report made by the Virginia Athletic Trainers Association (VATA) to the State Board of Medicine suggesting that VATA seek support by the board for licensure.

Frank C. McCue III, MD,
Chairman

Physicians' Health/Effectiveness

Recommendations

1. That the annual budget for 1988 of the Physicians' Health and Effectiveness Committee be $16,000.

This is $2,000 less than requested in 1987. It is estimated that this sum will meet the committee's needs in 1988, including necessary expenses for participation in the Impaired Physicians Conference of the AMA.

2. That such sums as are generated by the provision of management services to other professional groups represented on the State Board of Medicine accrue to the benefit of the committee.

One year ago approval was granted to the committee to offer management services to other professional groups represented on the Board of Medicine. Working in concert with some of these groups, a steering committee has reevaluated the Society's protocols for application to other professional groups and established policy under which the Society will provide such services.

These services will require additional staff and administrative support. It is recommended that the sums generated from the involved groups be escrowed on behalf of the committee and utilized to defray these costs.

General

In 1986, 23 individuals were reported to the committee. Fourteen of these were intervened upon, one was referred to the Board of Medicine, and 13 entered treatment. At the end of 1986, ten reported individuals were still under investigation. The number of physicians being actively followed by the committee now numbers 40. Supervising their aftercare needs represents an increasingly burdensome task for the committee.

The number of individuals reported to the committee represents a slight decrease from the previous year. In response to this decrease, the committee met and elected to solicit aid from the Medical Society of Virginia Auxiliary, which has enthusiastically supported the mission of the committee. As a result of the Auxiliary's involvement, nine reports were made to the committee during the first quarter of 1987. The Auxiliary has elected to promote the helping role of the committee through 1987.

The subcommittee on aid to impaired students, chaired by Dr. John A. Owen, Jr., has been instrumental in the establishment of impaired student programs at the University of Virginia and EVMS.

The work of this committee is handled largely by its members, who often drive long distances to meet on difficult clinical problems or to intervene on impaired physicians. Words alone cannot express the debt of gratitude we all owe these hard-working volunteers. Perhaps the greatest reward has been in the form of increasingly large numbers of grateful physicians who were previously impaired.

David G. Fluharty, Jr., MD,
Chairman

MSV VIDEO

"Together We Made History"—Three men who were in the front lines of the fight for tort reform at the 1987 session of Virginia's legislature do some thinking out loud about the campaign's astonishing outcome. Never did they dream, remembers one of them, that they could achieve anything more tangible than some hopeful dialogue with the legislators, but lo and behold, out of it came "the first fundamental change in the tort system in about 50 years—since workers' compensation was passed." The referral is to the landmark Birth-Related Neurological Injury Compensation Act. Other aspects of the campaign are recounted in this absorbing, highly professional video, which makes clear that although The Medical Society of Virginia's Executive and Professional Liability Committees led the way, the real heroes of the campaign were the hundreds of physicians all over the state who wrote, called, visited, or otherwise importuned their legislators to vote for tort reform. Co-stars Dr. Richard L. Fields, MSV President; Dr. Ronald K. Davis, chairman, MSV Professional Liability Committee; and Lawrence H. Framme III, head liability campaign lobbyist. 1987. 10 minutes. Produced for The Medical Society of Virginia by the Communications Center at St. Mary's Hospital, Richmond, in coordination with the DCM Group, Arlington. Now being shown all over Virginia at component society and hospital staff meetings. Cassettes are available on request free of charge at Medical Society of Virginia headquarters, 4205 Dover Road, Richmond, Virginia 23221, (804) 353-2721.

Balloon Valvuloplasty for Calcific Aortic Stenosis: Case Report

Leonard J. Hays, MD,
Carl Moore, MD, and
Mark Smucker, MD
Charlottesville, Virginia

Aortic valvuloplasty is now being performed in the catheterization laboratory, resulting in relief of aortic stenosis without surgery. The case we report here is, we believe, the first aortic valvuloplasty in Virginia on an elderly patient who refused to undergo surgery for symptomatic, severe, calcific aortic stenosis.

Case Report

The patient was an 82-year-old female who presented to the University of Virginia with chest pain, dyspnea, and a long-standing cardiac murmur. Six months prior to referral she began having substernal chest pains radiating to her neck, accompanied by progressive dyspnea, orthopnea and paroxysmal nocturnal dyspnea. Two months before admission she was admitted to her local hospital for an extensive gastroenterologic evaluation, which was unremarkable. Her chest pain and dyspnea increased progressively. One week prior to referral the patient experienced an acute exacerbation of dyspnea and was admitted to another hospital. A loud systolic murmur was heard on admission. Two-dimensional and M-mode echocardiography was consistent with aortic stenosis. The patient was begun on topical nitrates, but experienced a pre-syncopal episode. She was then transferred to the University of Virginia Medical Center for further evaluation.

On admission, she complained of chest pain, dyspnea on exertion, orthopnea and paroxysmal nocturnal dyspnea. The patient denied a past history of rheumatic fever, syncope or pedal edema. Her past medical history was significant for a previous subtotal thyroidectomy for toxic goiter, a cholecystectomy, and retinal laser photocoagulation.

Physical examination revealed an alert, elderly female in no apparent distress. She was afebrile with a respiratory rate of 18 breaths per minute. Her blood pressure was 120/60 mmHg with a pulse of 80 bpm. Carotid upstrokes were decreased bilaterally. Examination of the chest disclosed bibasilar inspiratory crackles. Cardiac exam revealed a laterally displaced, sustained apical impulse. There was an apical-carotid pulse delay. The rate and rhythm were regular with a Grade III/VI systolic crescendo-decrescendo murmur heard best at the right upper sternal border. The murmur radiated over the entire precordium and into the neck. A2 was absent. There were no diastolic murmurs, rubs or gallops. There was no hepatojugular reflux. Abdominal, urologic and rectal exams were normal. There was trace bilateral pedal edema.

Routine laboratories were normal. Chest x-ray revealed cardiomegaly with aortic valvular and mitral annular calcification. Lung fields were notable for blunting of the costophrenic angles bilaterally. A 12-lead electrocardiogram revealed normal sinus rhythm at a rate of 60 bpm, first degree AV block and left ventricular hypertrophy with repolarization changes.

Echocardiography demonstrated marked concentric left ventricular hypertrophy, left atrial enlargement, mitral and common annular calcification, and a thickened calcified aortic valve with decreased leaflet excursion. A gated cardiac blood pool scan demonstrated a thick left ventricular wall with near systolic obliteration, consistent with severe left ventricular hypertophy.

Initial cardiac catheterization results are summarized in Table I and Figure 1,A. The left ventricular ejection fraction was 54%. There was no mitral regurgitation. Biplane supravalvular aortography revealed minimal aortic valve cusp excursion, marked post-stenotic dilatation of the ascending aorta and trace aortic regurgitation. Selective coronary angiography revealed an eccentric 60% stenosis in the mid-portion of the right coronary artery.

Aortic valve replacement was recommended to the patient, but she refused. Aortic balloon valvuloplasty was discussed with the patient and her family, and was undertaken with permission from the Human Investigation Committee. The first attempt was unsuccessful because of insufficiently large balloons (>12mm diameter) (Table I, #1).

Because of persistent symptoms, valvuloplasty was repeated. Successful dilatation was carried out with a 15mm (diameter) balloon, but a 20mm × 3 cm (length) balloon was too short to keep positioned across the valve during inflation. Valve gradient was reduced somewhat (Table I, # 2, Figure 1, B).

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Submitted 10-7-86.

Table 1. Hemodynamic Data

	Initial	Post-Valvuloplasty Recordings #1	#2	#3
Aortic pressure (mmHg)	120/55	115/50	130/50	153/63
Left ventricular pressure (mmHg)	280/24	290/18	230/22	205/26
Thermodilution cardiac output (l/min)	3.1	2.9	3.1	3.3
Aortic valve gradients				
I. Peak-to-peak (mmHg)	158	164	102	60
II. Peak instantaneous (mmHg)	180	200	123	84
III. Cumulative mean (mmHg)	115	109	77	53
Aortic valve area* (cm^2)	.3	.3	.4	.5

*Calculated by using thermodilution cardiac output and Gorlin formula for aortic valve area.

After discharge the patient continued to complain of dyspnea and was readmitted to the University of Virginia with recurrent chest pains and syncope two weeks after discharge. A 24-hour ambulatory recording disclosed five brief episodes of atrial fibrillation at rates varying between 110 and 150 bpm. She was begun on verapamil 40 mg po tid and diazepam 2.5 mg po bid. Because of persistant symptoms, she remained hospitalized awaiting longer balloon catheters. Subsequently, the third valvuloplasty was performed with a 20 mm × 5 cm catheter, which reduced her aortic valve gradient further. (Table 1, # 3, Figure 1, C).

She improved symptomatically and has done well since from a cardiac standpoint.

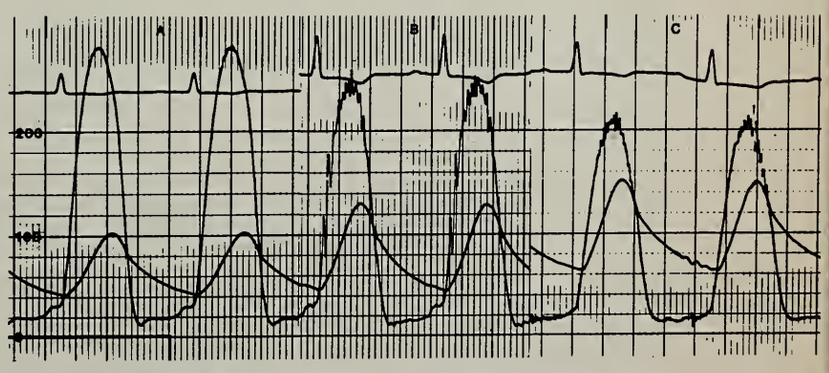
Discussion

After three procedures, we observed a final decrease in the mean aortic valve gradient of 62 mmHg which corresponded to an increase in valve area from 0.3 to 0.5 cm^2. The final hemodynamic measurements, although still within the range considered "critical" aortic stenosis, were associated with clinical improvement.

Aortic valvuloplasty is an extension of a movement toward therapeutic interventions in cardiology. Coronary dilatation with balloon tipped catheters has become routine in most catheterization labs. After the development of dilatation balloons, pediatric cardiologists used larger balloons to dilate stenotic pulmonary valves[1,2] and aortic coarctations.[3,4] Pulmonary valvuloplasty soon became an accepted form of therapy in children and infants, and even adults.

In 1984, Dr. Lababidi and his fellow workers published the results of percutaneous balloon aortic valvuloplasty in 23 consecutive pediatric patients with no associated cardiac defects.[5] Aortic transvalvular balloon inflation was well tolerated, and valvular insufficiency after dilatation did not occur. The mean aortic valve gradient decreased from 113 mmHg to 32 mmHg after valvuloplasty. In September of 1985, Doctors Cribier and Letac in Rouen, France, began performing valvuloplasty in adults with calcific aortic stenosis, and have presented their experience in 72 patients.[6] The mean age of their patients was 76 ± 10 years, with 79% of these patients older than 70 years. The mean aortic valve gradient in their series was reduced from 78 mmHg to 25 mmHg. The procedure was generally well tolerated. The mean aortic valve area increased from 0.5 to 0.8 cm^2 after valvuloplasty. There were no deaths during the procedure. In-hospital complications occurred in four patients. Three patients (4%) died due to acute pulmonary edema and one from an undetected retroperitoneal hemorrhage and sepsis. One patient developed angiographically severe aortic insufficiency but did well with medical therapy. There were no embolic complications. Followup of three months or longer was available in 44 patients. There were five deaths, three from recurrent congestive heart failure, one from myocardial infarction and one from pneumonia. The overall death rate in these elderly patients at three months was 8/72 (11%). Thirty-nine patients (89%) experienced a dramatic decrease in symptoms.

Drs. James Lock and Raymond McKay performed the first adult aortic balloon valvuloplasties in the United States. Their post-mortem and intraoperative studies demonstrated an increase in aortic valve orifice area and leaflet mobility in all patients after valvuloplasty, without tearing of valve cusps, liberation of calcific deposits, or disruption of the aortic valve annulus.[7] Percutaneous balloon valvuloplasty was also successful in two elderly patients.



1. Simultaneous left ventricular and aortic pressure recordings prior to valvuloplasty (A), after second valvuloplasty (B), and after final valvuloplasty (C). Ventricular pressure decreased and aortic pressure increased in serial fashion after each procedure. The reduction in gradient was sufficient to relieve symptoms.

As was the case in our patient, aortic balloon valvuloplasty was well tolerated and is not generally associated with embolism or valvular disruption.

Importantly, aortic valvuloplasty does not "fix" the calcified, deformed aortic valve. Residual valve gradients and valve areas often remain in the range indicative of "critical" aortic stenosis.[8] We speculate that "critical" aortic stenosis is a relative rather than an absolute concept. In our experience, patients who present with symptomatic aortic stenosis have valve areas which vary between 0.4 and 1.2 cm^2. Since most patients improve symptomatically after valvuloplasty, valvuloplasty probably merely "turns back the clock" on stenosis severity and symptoms.

The early data on immediate mortality after aortic valvuloplasty, though limited, compare favorably with surgery. Death rates after aortic valve replacement increase as a function of age. At the University of Virginia, patients over the age of 75 years had an in-hospital mortality of 3/13 (23%) and overall mortality of 4/13 (30%) at 17 $\pm$ 8 months. Three-month mortality after valvuloplasty in elderly patients in France was 11%.[9] Since valvuloplasty avoids many post-surgical complications and the need for prolonged convalescent care, valvuloplasty may be an alternative to aortic valve replacement in elderly patients at high risk for valve replacement. On the other hand, aortic balloon valvuloplasty is an unproven procedure. From our experience with sucessive generations of prosthetic aortic valves, we know it often takes years before the long-term success of new cardiac surgical procedures is known. New valve prostheses which initially are enthusiastically received often are withdrawn from the market later when unanticipated late complications are finally recognized.[10] We believe aortic balloon valvuloplasty is analogous to a new surgical procedure and that its usefulness as an alternative to surgery must be evaluated by rigorous prospective trials, including regular followup and objective tests of valve function.

The University of Virginia is one of a number of centers in the United States at which aortic balloon valvuloplasty is currently being performed on an experimental basis. Patients are eligible for the protocols if they have severe symptomatic valvular stenosis, and if they are deemed to be at high surgical risk for aortic valve replacement because of age or other physical illness or if they refuse aortic valve replacement.

We gratefully acknowledge the secretarial assistance of Jenene W. Reaves, Elizabeth Howk and Deborah Cason.

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VIRGINIA MEDICAL
EDITORIAL

Cigarette Sales in Hospitals

A recent article in *Indiana Medicine* (Torabi MR et al. 1987;80:756) deals with the results of a statewide (Indiana) survey of hospital policy and practice concerning cigarette sales.

Of four hypotheses tested, the authors concluded that there was only one significant relationship, i.e., if the administrator thinks that the hospital should sell cigarettes, the hospital does sell cigarettes. Whatever the factors involved, it is noteworthy that the sale of cigarettes in Indiana's accredited hospitals has declined from 58% in 1976 to 13% in 1986.

There are no available statistics on hospital-based cigarette sales in Virginia, either ten years ago or at the present time. However, a telephone survey of 17 Richmond hospitals reveals that cigarettes are available on the premises, either in the gift shop or in vending machines or both, in six hospitals (35%).

The medical profession in Richmond should be able to exert their influence to eliminate all cigarette sales on hospital premises. Indeed, if this is a true sample of the state of affairs in Virginia, there is work for all Virginia physicians. E.L.K

Valvuloplasty

Over the past 10 years the role of cardiac catheterization in the management of cardiovascular diseases has undergone a major change. In addition to the routine hemodynamic and angiographic diagnosis of congenital, valvular and coronary artery disease, utilization of percutaneous transluminal coronary angioplasty (PTCA) now provides treatment for many patients with stenotic coronary lesions reducing and/or delaying the need for coronary artery bypass surgery. PTCA was pioneered by Dr. Andreas Gruentzig, who refined and miniaturized earlier peripheral dilatation techniques while adapting the balloon procedure to the coronaries. Gruentzig, however, was not the only pioneer in this long evolution of therapeutic interventions in the catheterization laboratory. In the mid-1960s, Rashkind and Miller[1] reported the utilization of a balloon catheter for opening the atrial septum to allow better mixing of blood in infants with severe cyanotic congenital heart defects. Now the evolution of invasive cardiac techniques beginning with catheterization in the 1940s, coronary angiography in the 1960s and coronary angioplasty in the 1970s has further evolved with the introduction of balloon catheter dilatation of stenotic valves in the 1980s.

Kan and Associates in 1982[2] reported successful catheter valvulotomy for pulmonic stenosis. Subsequent reports have indicated that for the majority of pediatric patients with pulmonic valve stenosis, valvuloplasty is the treatment of choice. More recently, the dilatation of stenotic aortic valves in infants and children has been pioneered by Lababidi.[3]

Most recently Cribier et al[4] extended percutaneous transluminal valvuloplasty to aortic stenosis in adults, particularly elderly patients in whom aortic valve surgery carries an increased risk. Experience with aortic valvuloplasty has increased substantially, with over 400 patients included in the French registry. Patient reports from France and the United States have reported a high immediate success

rate (> 90%), resulting in the reduction of the aortic valve pressure gradient by at least 50%.[5] Complications have tended to be low considering the age range and the associated medical problems of the patient population, particularly in contrast to alternative risks of surgical valve replacement. In-hospital mortality has been low (<5%) for most centers. Although patients are symptomatically improved and transaortic valve gradients are reduced, the overall change in aortic valve area is generally modest, with some degree of residual stenosis persisting in most patients.

The mechanism of valvuloplasty is thought to relate to splitting or separation of lesion fusion at the commissures as well as fracture of nodular or calcific deposits on the leaflet leading to increased pliability of the otherwise stiff and non-compliant leaflets. Interestingly, embolic events associated with dilatation of the highly calcific adult aortic valves has been quite low, a finding that has significantly enhanced enthusiasm for the procedure.

The current case report by Hayes et al in this issue of VIRGINIA MEDICAL is representative of the usual response. The authors report a modest decrease in translesion gradient and valve area but with significant clinical improvement of the patient.

Current catheters for aortic dilatation are not ideal from a number of design aspects, which should be improved as newer generations of catheters become available. As with coronary angioplasty, the initial catheters were quite crude but over a short time have been significantly modified to dramatically enhance the safety and efficacy of the procedure. There is every hope that the same will hold forth for valvuloplasty catheters. Thus, hopefully, results will continue to improve, with greater reduction in translesion gradients, while the complication rates, particularly those related to vascular problems, will decline.

There is only limited data available regarding the long-term followup of patients undergoing valvuloplasty. However, intermediate followup at six to nine months indicated that 70% of patients maintain a good hemodynamic result.

Critical aortic stenosis is a serious disease. Natural history studies have long shown that 50-90% of patients with syncope, presyncope, angina, and/or congestive heart failure are dead within three to five years. There is no medical management for this problem. Thus physicians have continually been faced with the risk of the natural history of aortic stenosis versus a known, significant risk, particularly in the elderly, for aortic valve replacement. It is hoped that with the availability of valvuloplasty, more elderly patients will have the potential for improved functional status without being subjected to the morbidity and mortality of a surgical procedure.

Systematic analyses of patients undergoing valvuloplasty in Virginia and throughout the country will be necessary to categorize the short- and long-term outcomes. Well organized trials will be necessary to determine whether or not these techniques will become applicable to lower risk, younger patients with significant aortic and mitral valve disease.

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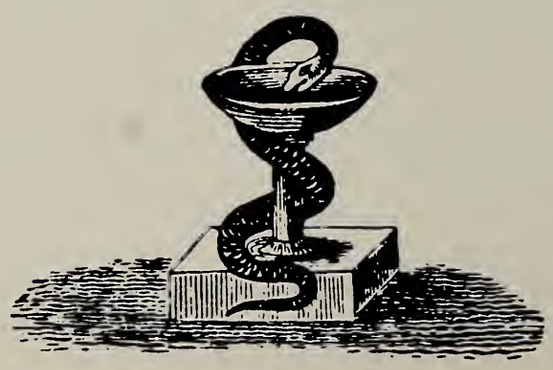


OBITUARY

Memoir of J. L. Hamner, Sr. 1893-1987

By Robert I. Howard

The newspaper report was simple and factual, informing Virginians that Dr. James Loving Hamner, Sr. died in Richmond on August 4, 1987 at the age of 93. It was correct in its statement that this family physician had served Amelia County and its adjoining area for almost 60 years, and that his contributions to his state, county and public service organizations had been extensive and effective.

It is, however, what the report did not say that brings a feeling of sadness and great personal loss to all those who knew him well and loved him for his total dedication to all mankind. Dr. Hamner was everything a physician should be and his memory will forever serve as an inspiration to present and future generations of doctors.

Dr. Hamner practiced in Amelia County from 1920 until his retirement in 1976. He was a "country doctor" in every sense of the word and his office in Mannboro was a haven for everyone needing help. His practice was never by the clock—as many of those who called him at all hours of the night can testify. When driving at night became difficult, it was his beloved wife Rebecca who took the wheel and made sure his rounds were uninterrupted.

Even with a never-ending work load, this great and gentle man somehow found the time to serve as president of both The Medical Society of Virginia and the Virginia Academy of Family Physicians. He never forgot his undergraduate days at Lynchburg College and was at one time a member of its Board of Overseers. A graduate of the Medical College of Virginia in 1916, he interned at the former Grace Hospital in Richmond.

A deeply patriotic man, it seems only fitting that Dr. Hamner should have served his nation as a medical officer during World War I.

Although Dr. Hamner would have been the last to take notice of the many honors bestowed upon him, it will mean a lot to his friends to review—even briefly—some of the most notable. He has served as a member of the Governor's Legislative Council and as chairman of the State Board of Health. For 25 years he was the executive secretary of the Amelia County Board of Health. Dr. Hamner was named Family Practitioner of the Year in 1952 and in 1954 received an honorary degree of master of science in general medicine from the Medical College of Virginia.

Richmond Newspapers photo

James L. Hamner, Sr., MD,
President, 1953–1954,
The Medical Society of Virginia

The Douglas Southall Freeman Award was presented to Dr. Hamner in 1956 by the Virginia Tuberculosis and Respiratory Disease Association. He was cited in 1960 for his contributions to human welfare by the Amelia Ruritan Club.

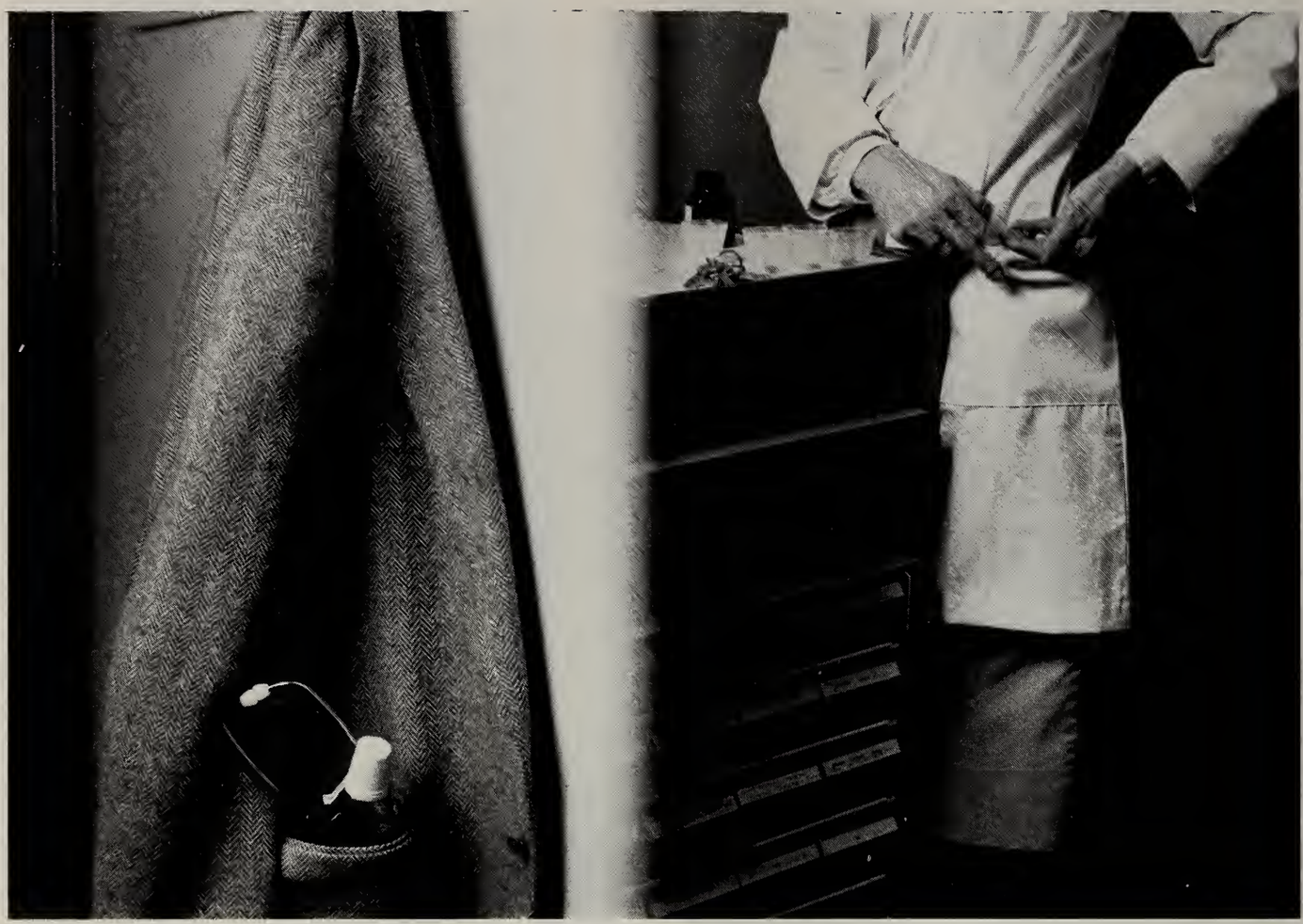
Some of Dr. Hamner's happiest moments were associated with his farm and the beef cattle so close to his heart. These moments were shared with his son, James L. Hamner, Jr.

The medical profession has indeed suffered a great loss, and so have all of us whose lives were touched by this warm and wonderful man. Surely the stars in Heaven now shine a little brighter.

• **Fay I. Carr, Jr., MD,** Portsmouth radiologist; Medical College of Virginia, 1960; age 55; died July 17.

• **Roger Clifton Grady, MD,** Roanoke pediatrician; Stanford University School of Medicine at Palo Alto, 1946; age 67; died July 31.

• **James Dalton Price, MD,** Norfolk internist/cardiologist; Medical College of Virginia, 1954; age 63; died July 18.



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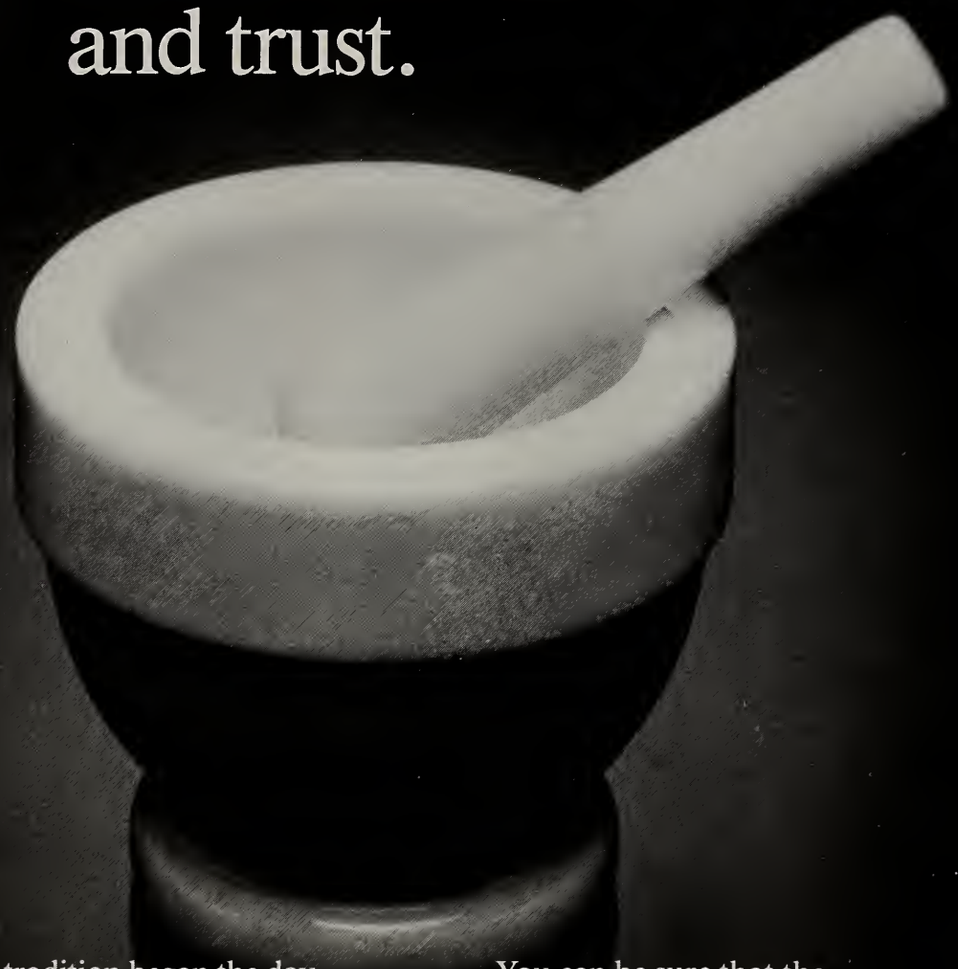

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PEOPLES DRUG

LETTERS

To treat pleural effusion/neoplasm, he chooses Dr. Whitehouse

I must be stupid. After reading Dr. Frank Whitehouse's letter in VIRGINIA MEDICAL's August issue and the response from Dr. Poutasse,[1] I couldn't believe that there was ever any question about this patient needing hospitalization. [*Editors' Note: Dr. Whitehouse described denial of hospitalization by the MSVRO of a patient with a large right pleural effusion, neoplastic mass at the right hilar area, shortness of breath, considerable pain, and marked weight loss and debilitation. The published reply from the MSVRO's medical director, Dr. E. F. Poutasse, indicated that hospitalization might be approved in such a case if "specific circumstances and/or conditions are documented."*]

I subsequently presented the case to one of the oncologists in our town, a pulmonary disease specialist, and a general internal medicine man. Guess what? They must be stupid, too. None of them would have considered working up this patient on an outpatient basis. The possibility of post-thoracentesis complication, such as pneumothorax, made the pulmonary specialist uneasy with the idea of tapping the effusion for cytology studies on an outpatient basis. He pointed out the advantage of doing a pleural biopsy at the same time, and how outpatient lab specimens, such as cytologies, can be lost or mishandled.

The oncologist I talked with subsequently took over the care of this patient, who soon died because his cancer was so advanced.

It is of interest that the cost of health care in Lynchburg and the utilization in terms of days in the hospital are next to the lowest in the state. Part of this is due to the tradition of medical practice which has been developed here over the years by such physicians as Dr. Whitehouse. Can we as ethical physicians apply standards of care to our patients which we really would not accept for ourselves? If I develop a large pleural effusion and probable cancerous mass in the setting of marked weight loss, shortness of breath, and much debilitation, please let me go into Dr. Whitehouse's office and not Dr. Poutasse's.

Jeffrey W. Wilson, MD

2025 Tate Springs Road
Lynchburg VA 24501

1. Whitehouse FR. Loses two patients after admission for pleural effusion/neoplasm. Va Med 1987;114:440

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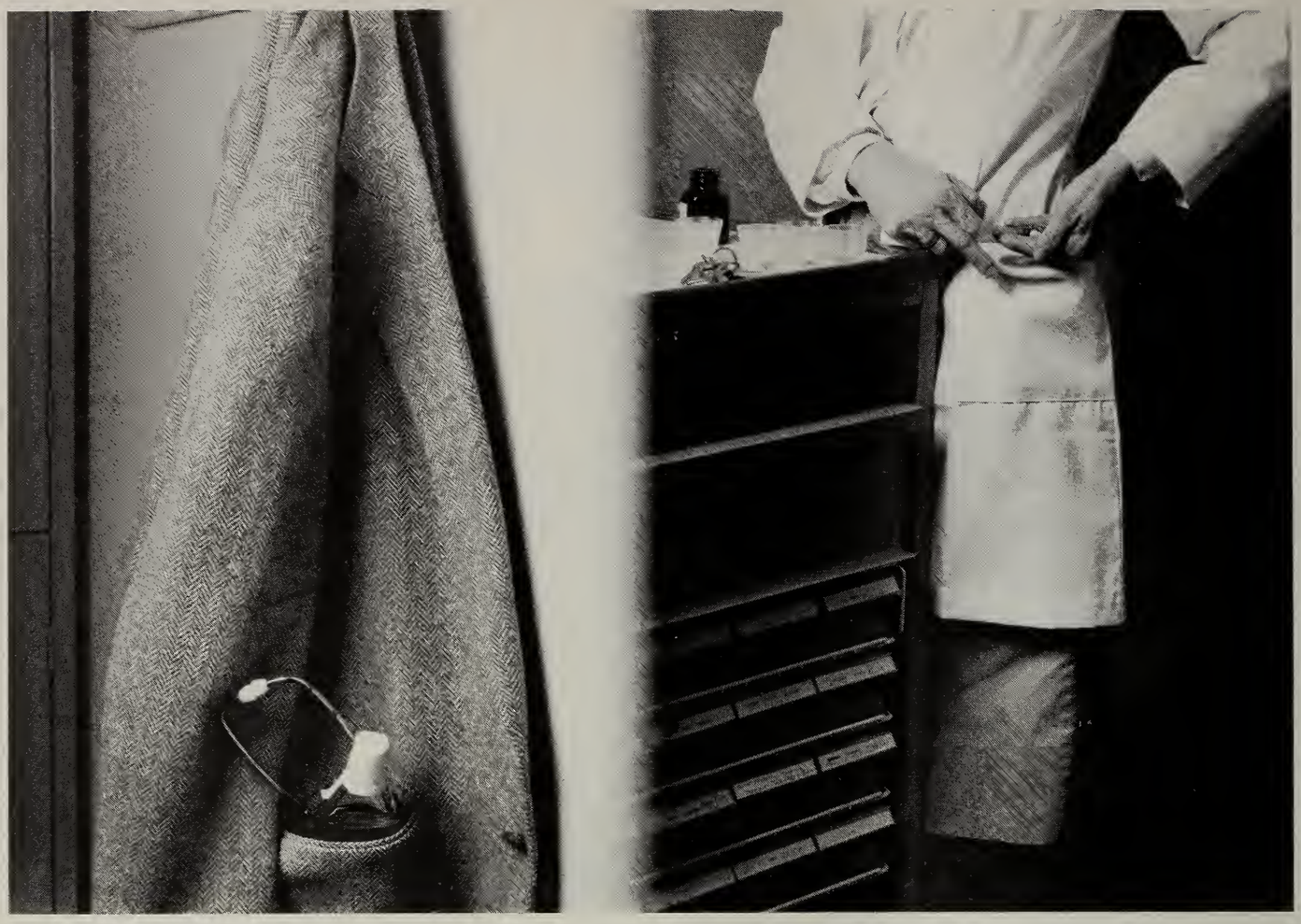

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MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

NEW LIABILITY RATE PROTOCOL FOR OBSTETRICANS

In a move significantly supportive of the new Birth-Related Neurological Injury Compensation Act, Virginia's Commissioner of Insurance, Steven T. Foster, has ordered liability insurance companies to file two rates for Virginia obstetricians--one for those who participate in the program and pay $5,000 to do so, a different ones for those who do not participate. The carriers will have to provide actuarial information justifying both rates, Commissioner Foster warned; if he doesn't get it, he won't approve the rates. He did not ask for a dollar-for-dollar discount for the participating obs, but it is expected that the rates he approves for them will offset to a degree their $5,000 assessment. Announcement of the Commissioner's edict came during a meeting in September of the General Assembly's joint subcommittee on liability and tort reform chaired by Sen. William F. Parkerson, Jr.

PHYSICIANS OPEN FREE CLINIC IN LYNCHBURG

In Lynchburg, 36 physicians had signed up to staff the Free Clinic of Central Virginia when it opened its doors in September to the working poor of Lynchburg and the surrounding area. Inspiration for the new clinic came from the renowned Free Clinic of the Roanoke Valley, which since its founding in 1974 has been going great guns. **Dr. Thomas W. Eppes, Jr.**, a family practitioner in Forest, worked at the Roanoke clinic during his residency; he found the experience so satisfying that at a meeting of the Piedmont Academy of Family Practice Physicians early this year he asked for help in putting together a similar clinic in Lynchburg. Twelve members committed themselves on the spot to staffing the clinic, and the project was on its way.

A funding drive yielded $50,000 in money and pledges from individuals, businesses and other groups; no public funds are involved. **Dr. C. Patrick Lewis**, who was retiring from private practice in Forest, donated the contents of his office--lock, stock, and examining table. The Lynchburg Academy of Medicine endorsed the project and drummed up support with its newsletter. The original volunteer staff of

12 tripled, and 30 specialists signed up. The Westminster Presbyterian congregation gave the church's spacious basement as a home for the clinic, and people from all over helped with its "incredible transformation," as Dr. Eppes describes it, into a treatment center.

Candidates for the clinic are "the medically poor," Dr. Eppes explains. "They are people who work but are not insured or have no outpatient insurance, are too proud to seek public relief or don't qualify for public relief." A month after the clinic opened, the staff was averaging 15 patients a night and the caseload was growing.

ALBEMARLE COUNTY MDs EASE COSTS FOR ELDERLY

Affordable medical care for elderly residents of central Virginia is the purpose of a program initiated by the Albemarle County Medical Society in cooperation with the Jefferson Area Board for Aging. In support of the program, 256 primary care physicians have volunteered to accept Medicare payments for services to low-income elderly people even though the payments are lower than their UCR charges, and the program is named for their commitment: Voluntary Medicare Assignment Program for Physicians, or VMAPP (pronounced vee-map). Patients in the program contribute by paying Medicare's 20% copayment.

About 7,000 residents of Albemarle and surrounding counties are candidates for the program; they are Medicare-eligible people who have annual incomes of less than $11,000 for a single person or $14,000 for a couple, or anyone eligible for at least one of the following benefits: Supplemental Security Income, fuel assistance, food stamps, legal aid, or the University of Virginia Primary Care Center blue card.

The Albemarle County Society is putting not only its doctors but its money into the the program by funding staff/office/mailing expenses, according to **Dr. George R. Hanna**, the society's president. He praised as the program's major facilitator **Dr. John A. Owen**, Jr., who for two years worked with the Board for Aging to iron out the details of the joint venture.

Public Affairs Report

THE U.S. SUPREME COURT has upheld the Massachusetts ban on "balance billing" for Medicare patients and has affirmed the right of a state to require physicians to accept mandatory Medicare assignment. The ruling occurred despite vigorous constitutional challenges by the entire organized medical community, especially the AMA and the Massachusetts Medical Society. 1

THE AMERICAN NURSES ASSOCIATION is planning to secure an independent role for nurses in delivery of care in institutions, the community and in home care. The AMA recommends that state medical societies be alert to initiatives that would establish a two-tiered system of care, especially for the needy.

MEDICARE PREMIUMS WILL JUMP from $17.50 to $24.50 a month (38%) in January, the largest single hike since Medicare was established in 1966. The rise is partially due to a 22% rise in Medicare expenditures for physicians' services but stems in large part from a deliberate holding down of Part B premiums over the past two years.

THE U.S. DEFENSE DEPARTMENT has identified 4,800 individuals infected with the HIV virus out of more than 3 million people tested. That's 1.6 cases per thousand, the steady ratio since testing began 18 months ago.

LOUISIANA IS THE FIRST STATE to pass legislation addessing surrogate mother contracts. Under that state's new law, such a contract "shall be absolutely null and void and unenforceable as contrary to public policy."

GOVERNMENT TESTING of the effectiveness of condoms shows that one out of five sample lots failed to meet federal water leakage standards, according to a recent FDA report.

THE HCFA IS CONSIDERING a preferred provider program for Medicare beneficiaries under which physicians would have to meet HCFA standards as to treatment and medication prescribing patterns and would have to accept assignment on all cases. Benefits to patients using nonparticipating MDs would be decreased and copays hiked. The AMA is vigorously opposing this plan.

W. Leonard Weyl, MD

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VIRGINIA MEDICAL
NOVEMBER 1987

Too Few Doctors, Not Enough Money

As his first year in office drew to a close, Virginia's Commissioner of Health was asked to size up the challenges he believes his administration must address.

By C.M.G. Buttery, MD

I enjoyed my six-year sojourn in Texas, especially since I had the chance to come back home to friends and family. The Texans are friendly, open, and easy to work with. The western Gulf coast is a public health challenge because you have to learn tropical medicine all over again. When you see a youngster with a rash, you suspect endemic typhus, not measles. When you see someone with a severe headache, you do not think first of meningococcal meningitis but of St. Louis encephalitis or dengue. Cholera is seen on occasion in Texas, and food poisoning with cholera variants occurs from time to time. Chagas disease transmitted by the "kissing bug" is seen on very rare occasions; in a young child it tends to show up as severe myocarditis.

Rabies is more common in Texas than in Virginia, even though Virginia is fourth in the United States, with Texas having 243 cases and Virginia 200 in 1987 through June 20. In Texas, rabies is seen commonly in skunks, rather than raccoons as in Virginia. It is unusual for the temperature to drop below 40 degrees so mosquitoes are never killed off, and control of mosquito-borne diseases is necessary the year round. But other than problems associated with climate, public health problems in South Texas and Virginia are similar.

I was impressed that the medical society in Texas, just as in Virginia, was concerned about, and took an active interest in, public health problems at a policy level. I was fortunate enough to sit on the Health Education Committee of the Texas Medical Society. This committee helps the society's members become more aware of the role of health education in the physician's office, as well as the role of physicians in developing health-related public policy in their communities. Physicians are encouraged to take visible roles in school health policies and serve on the advisory committees to the school districts. The advisory committee in Corpus Christi was vital in preparing school district personnel and the community for the problems of AIDS.

In Virginia, I find that malpractice issues continue to have a delete rious effect on our ability to deliver medical care. The State Health Department delivers its service in cooperation with physicians in private practice around the state. Clinical services within the department are delivered in the main by

clinics with such targets as family planning, immunization, sexually transmitted disease and prenatal care. Most of the care is rendered by physicians in the community for a minimal hourly rate.

In the maternity clinics it is often difficult for nonMedicaid patients to obtain care if they are identified as being at high risk; sometimes it is just as difficult if one is a Medicaid patient. This reluctance of many physicians to see poor patients stems from concern that the patient is more likely to have an adverse outcome, which could lead to an increase in malpractice rates. As a result, many prenatal patients have to travel long distances to medical centers for treatment and delivery.

To ease the problem we have been using more specially trained practitioners, such as nurse midwives, and family planning and pediatric nurse practitioners. They, however, are also having problems in obtaining malpractice coverage, and we have not found a satisfactory answer yet. I am concerned that lack of physicians will continue to affect our ability to serve the poorest patients.

Another major effect of the malpractice issue has been the enormous increase in the cost of vaccines. Many middle-income patients with several children can no longer afford routine immunizations; they wait until the child must have them to enter school and then come to the Health Department. Thus at a time when we have had no significant increase in our budget (in fact, we have been funded at maintenance standards for three biennia), we not only have to pay much more for vaccines, but the number of families coming to us for vaccines has increased.

As in the private practice office, fear of malpractice suit means additional preventive testing by the department's physicians and clinics, to be sure we cannot be faulted for a rare sin of omission, and we are subject to far more peer review audits than the private practitioner; every source of funds requires performance as well as fiscal audits. The United States Department of Health and Human Services, which provides significant funding for maternal and child health services, infectious disease control (TB, STD, immunization) and family planning, requires increasingly detailed records. Because of congressional oversight and perceptions that "no one in government can be trusted," our paperwork multiples each year. No two programs use similar data bases. Records multiply exponentially, and we are involved in a complicated paper chase.

Federal funding for comprehensive health planning was eliminated at a time when planning the use of scarce resources was becoming ever more important. When we spend $1 billion a day in the United States on health care and when the proportion of the gross national product used for health care has climbed to more than 11% (and shows no sign of settling), the need for accurate data and better planning is crucial. We cannot rely on federal statistics, we need Virginia data to continue major, comprehensive health planning in Virginia. Such planning should not be based on the health service areas, which were arbitrarily developed, but on the primary, secondary and tertiary medical trade areas related to Virginia's primary, secondary and tertiary hospital and specialty referral services.

My health directors around the state have prepared six-year plans; as soon as they are aggregated into a statewide plan and printed, we will provide executive summaries to anyone who is interested. We are preparing a budget for the next biennium to move toward the goals of those plans. Assuming it passes the Department of Planning and Budget and the General Assembly, I expect we will be able to improve our state, regional and local data collection and thus build our analytic and planning capability. Then I will expect the local health directors to work with the medical societies, hospitals, nursing homes and other health care providers to work up community-based plans for total health care. These will be aggregated by medical trade area into a state plan to provide a base for policy development

Whither certificates of need?

Scheduled to be delivered to Gov. Gerald L. Baliles this month is the report of a commission created by the governor to reexamine Virginia's certificate-of-need law. Dr. Buttery, who as Commissioner of Health must administer the CON law, sits on the commission with 16 other members under the chairmanship of Deputy Secretary for Human Resources Mastin T. (Tom) Jacks. They have been meeting monthly since January of this year.Forty liaison organizations, including The Medical Society of Virginia, have contributed to the commission's deliberations.

What position the commission's report will take is unknown, but Dr. Buttery has been outspoken about his dissatisfaction with the certificate-of-need law. His chief complaints, as related in an interview for Virginia Medical: 1) "It takes up an enormous amount of the department's time, time that should be spent on preventing disease and keeping people well." 2) "It tends to propogate those who are already in the system without letting new players in." 3) "It's a negative, rather than a positive, way of dealing with an issue." 4) "I think it's inappropriate for one person [i.e., the Commissioner of Health] to have so much power over a whole industry."

If the law is retained, Dr. Buttery suggested it might be administered by another agency, since "it may be more of a regulatory function than a public health one." —A.G.

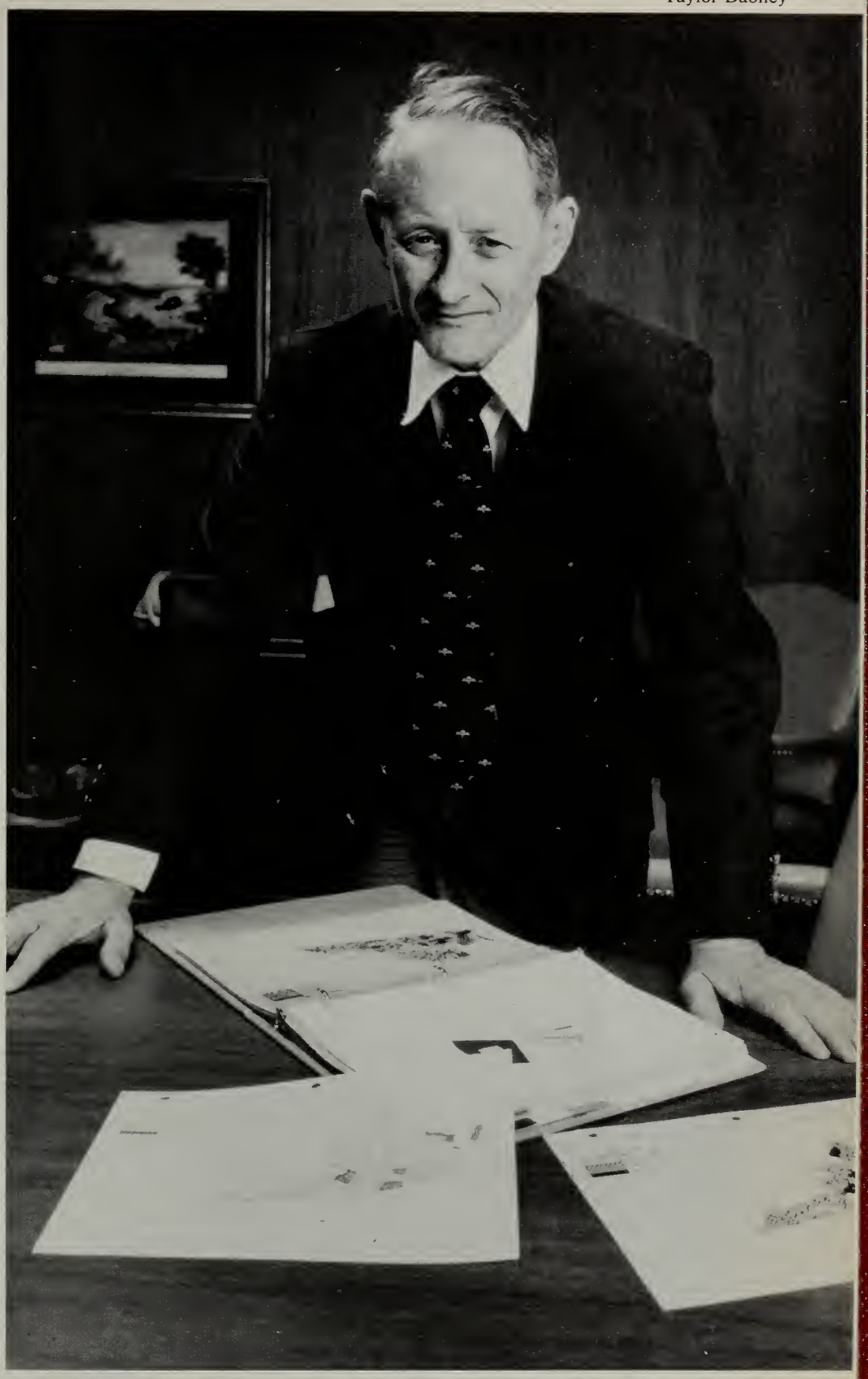
in the health care field.

We need a better way to coordinate state health care policy. Each General Assembly identifies a number of health-related issues and appoints study committees to deal with them, but there is no way to integrate these topics/studies. Possibly Virginia needs an "Institute of Medicine" similar to the Institute of Medicine at the National Academy of Science. Such an institute could report directly to the Secretary of Human Resources. Its members would be academicians, practitioners, and administrators. It would provide a forum for the debate of issues and the formulation of policies. It could suggest pilot studies to test policy options and move Virginia to the front of health care policy development. With high visibility, development of credibility, and a strong science base, I believe such an institution could help us develop a more responsive health care system.

If we don't develop such an institution, the federal government, because of a perception of need to balance the budget, will centralize more social policy-making. Health services, which are greater than any other segment of our economy, are the prime target for control. When national policy-makers look at data from other countries, every other developed country seems to get more bang for the buck.

With the cutback in federal funds, more resources must be obtained by raising local or state taxes. The only other alternative to cutting services will be to charge for them. Unfortunately, the clients of the Health Department and emergency rooms, and many clients at our major referral centers, would be the ones least able to pay. The results would be increased morbidity and death and a continuing increase in health costs.

Taylor Dabney



State Health Commissioner Buttery

After a year back in Virginia, I see as major concerns for the next ten years the need for coordinated, comprehensive community health planning by health care providers; better data collection; better policy analysis and strategic options; and application of better management technology to the health care field. All physicians need to be involved. I know how much time my practice took when I was in private practice. I know I resented time taken away to consider health policy or economics beyond my office practice. But I think that Virginia's private and public sectors of medicine need to work more closely together than ever before.

Grand Rounds: Carpal Tunnel Syndrome

From the Medical College of Virginia/Virginia Commonwealth University.
Discussed by Duncan S. Owen, Jr., MD,
Robert T. Leshner, MD, and Charles L. McDowell, MD.

Causes of CTS

Dr. Owen: Carpal tunnel syndrome (CTS) was first described in 1854 by Paget, of Paget's disease fame. The tunnel has rigid walls dorsally, is limited on the sides by the carpal bones, and is enclosed on the volar aspect by the transverse carpal ligament. The median nerve and the flexor tendons pass through the tunnel. The nerve branches out to supply sensation to all fingers except the fifth and the ulnar side of the fourth. The motor branch supplies the thenar muscles. (The hypothenar muscles are innervated by the ulnar nerve).

Even though the syndrome is common and has many etiologies, it is frequently misdiagnosed and mistreated. Many patients think it is a circulatory problem, since they have pain and numbness in their hands which frequently awakens them in the middle of the night, and they shake their hands to "get the circulation going." A physician unfamiliar with CTS may prescribe calcium channel blockers or other vasodilators or similar medications.

Hypesthesia on physical examination in the median distribution of the hands is the most consistent finding of carpal tunnel syndrome. The physician should check particularly the tip of the third finger, and if there is some diminution to light touch or to pinprick in that area, this should make one very suspicious. The Tinel sign of tapping of the median nerve in the wrist, which produces parethesias in the distribution of the median nerve, is positive in many but not all cases; however, some individuals normally have a positive tap, so this has to be accepted with caution. The Tinel sign may also be negative. Check for atrophy of the thenar muscles, although this is a late sign. Phalen's sign is performed by hyperflexing the wrist; symptoms of CTS should develop in 30-60 seconds. Hyperextending the wrist, or the reverse Phalen's sign, may give similar symptoms. Again, there are false-positive and false-negative Phalen's signs.

Proliferative rheumatic diseases, e.g., rheumatoid arthritis, are common causes of CTS (Table 1). This is illustrated by a patient who developed rheumatoid arthritis while in her 30s and several years later developed symptoms of CTS: I injected her carpal tunnels on several occasions, with benefits lasting 3-4 months. At age 53, when her symptoms obviously were becoming more chronic, Dr. McDowell operated on one of the carpal tunnels, and she has had no further symptoms. Dr. McDowell reported at surgery there was considerable tenosynovitis, debridement was done, and the pathologist's report was "rheumatoid synovitis." Rheumatoid arthritis tissue proliferates over the flexor tendons, and this causes compression of the median nerve, as Figure 1 illustrates.

What about other proliferative diseases? Any sort of

From the Division of Connective Tissue Diseases, Department of Internal Medicine (Dr. Owen), and the Departments of Neurology and Pediatrics (Dr. Leshner) and Orthopedic Surgery (Dr. McDowell). Address correspondence to Dr. Owen at Box 647, MCV Station, Richmond VA 23298.

Presented on November 14, 1986. This is Publication No. 246 from the Charles W. Thomas Fund.

chronic infection, for example, tuberculosis, can cause CTS. Nontuberculous mycobacteria, the so-called "atypical" mycobacteria, can cause CTS on occasion. This is illustrated by a male patient we saw about 20 years ago who had this type of infection associated with severe bilateral CTS. He almost lost the use of his hands. The ulnar nerve was also compressed. He had been operated on at another hospital and the surgically removed tissue was microscopically interpreted as "rheumatoid synovitis." The neurosurgeon later referred the patient here. We obtained the microscopic slides of the excised tissues and found granulomas throughout the tissue. The patient subsequently developed nodules on the proximal aspects of his forearms. Biopsies were taken from two separate sites and cultures from each of these specimens revealed Type I nontuberculous mycobacteria. (Today this would probably be classified as *Mycobacterium marinum* infection.) Fortunately, the organism was sensitive to the drugs we had available then, and the patient did extremely well, with complete resolution of symptoms and signs.

What about infiltrative diseases? Amyloidosis may play a big role in CTS, and I think we will hear more about this in the future. For example, CTS is very common in patients undergoing hemodialysis, and these patients improve with carpal tunnel decompres-

Table 1. Causes of Carpal Tunnel Syndrome.

1. Proliferative Diseases
   - Rheumatic diseases, including spondyloarthropathies
   - Chronic infection, e.g., tuberculosis
   - Hemophilia
   - Diabetes mellitus
2. Infiltrative Diseases
   - Amyloidosis, 1°/2°, including chronic hemodialysis
   - Hypo- and hyper-thyroidism
   - Acromegaly
   - Some mucopolysaccharidoses
3. Crowding
   - A. Acute
     - Infections, including staph, strep, rubella, and hepatitis B
     - Crystal deposition diseases
     - Intravenous drugs (chemical thrombophlebitis)
   - B. Chronic
     - Osteopetrosis
4. Pregnancy
5. "Neuropathies"
   - Diabetes mellitus
   - Pyridoxine overdosage
6. Familial
   - Idiopathic compression
   - Thickening of transverse carpal ligaments
   - Osteochondritis dissecans
7. Association with Cervical Spondylosis
8. Anatomic Anomalies
   - Arteriovenous fistulae, congenital brachial hypertrophy, ulnar bursal distention from intercarpal joint, tendon/muscle anomalies
9. Trauma
   - Elbow fracture
   - Occupation-related
   - Possible removal/creation of vascular shunt
   - Radial artery puncture/catheterization
   - Colle's fracture
10. Tetanic carpopedal spasm
11. Idiopathic

Fig. 1. Operative view of carpal tunnel after retraction of ligaments and debridement of rheumatoid synovium. Rubber drain split, opened up, and placed under median nerve. Well-demonstrated "hourglass" deformity of nerve secondary to compression. *Courtesy Charles L. McDowell, MD*

sion. It was thought for some time that CTS in these patients was actually from venous blockage or similar problems secondary to access vascular shunts, but it has recently been shown that many of these patients actually have amyloidosis, and if the surgically removed tissues are carefully studied, amyloid may be seen.

Hypothyroidism is a cause of CTS that has been known for years and case reports have been published, but I think it is rare. Acromegaly as a cause is well-documented. Some of the mucopolysaccharidoses can cause CTS. Acute crowding may occur with infection, such as staph, strep, rubella, and hepatitis B. Even rubella vaccine has been reported as a cause. Usually with hepatitis B, as with rubella, it is a short-lived phenomenon and is related to inflammation in the carpal tunnel.

Crystal deposition diseases, e.g., gout, occasionally cause CTS, as do intravenous drugs, mainly diazepam. Certainly chronic crowding, as seen with marble bone disease (osteopetrosis) is a cause. CTS is very common in pregnancy and is apparently related to retention of fluid. These individuals are usually helped with injections and cock-up splints. Delivery usually produces a "natural cure."

At one time pyridoxine was advocated as a treatment for carpal tunnel syndrome, but there is no good evidence of its effectiveness. In addition, there have been cases of vitamin "freaks" who took enormously high doses of pyridoxine and developed peripheral neuropathies.

Familial idiopathic compression, thickening of the transverse carpal ligaments, and familial osteochondritis dissecans are causes of CTS. An unusual cause is the association of carpal tunnel syndrome with cervical spondylosis. There have been several studies linking CTS and degenerative disk disease of the cervical spine.

What about CTS and occupations? Dr. Cecile Rose of the Division of Clinical Toxicology and Environmental Medicine at the Medical College of Virginia sees lots of patients with musculoskeletal problems associated with occupations, and I note in statistical reports from the Virginia Department of Health a large number of cases of CTS related to occupations. CTS is not a reportable disease; these cases are workmen's compensation documentation.

I encountered an unusual instance of occupation-related CTS some years ago in a 38-year-old man who was part owner of a tire store and also a stock car driver. He developed aching, numbness and tingling in his right hand at about the 25-30-mile post of 50-100-mile stock car races. He would shake his right hand to get his feeling back and almost had several wrecks. In his tire business, the patient supervised tire mounting, and if the workers mounting tires got behind in their work, the patient would pitch in. Rather than looking around for a rubber hammer, he would slam the hubcap on with his hand—right at the carpal tunnel! His electromyogram (EMG) was positive. Surgery was performed, the tunnel was described as very tight and the nerve deformed. Postoperative instructions included the proper way to install a hubcap. He has not had any subsequent problems.

Removal of vascular access shunts or creation of vascular shunts are listed as causes of CTS; I am not sure what to make of this because amyloid is being reported in the carpal tunnels of these patients. Other vascular problems include radial artery puncture and catheterization. Certainly a hematoma would produce temporary CTS. Miscellaneous causes included carpopedal spasm from hypocalcemia or hypomagnesemia. The big "cause" is idiopathic!

Diagnosis of CTS

Dr. Leshner: There are basically three common canal syndromes: 1) carpal tunnel syndrome; 2) cubital tunnel syndrome at the elbow; 3) tarsal tunnel syndrome at the ankle. For every case of tarsal tunnel syndrome, there are many, many more cases of CTS.

A Civil War surgeon by the name of Weir Mitchell first described causalgia. Even radiation of symptoms proximally was described, including radiation to the elbow and shoulder. (Tarsal tunnel syndrome radiates from the ankle and causes symptoms mainly on the plantar aspect of the foot.) With median neuropathies and with median penetrating injuries, there is a tremendously increased incidence of proximal radiations in bizarre "nonneuropathic" types of symptoms. I have two patients who claim their chronic tension-vascular headaches were cured one day after the release of their transverse carpal ligaments. When people come to our lab with a requisition sheet stating "shoulder pain. Rule out a C-6 lesion," the first thing I have my technician do is screen for CTS.

The reason CTS is misdiagnosed—and here I am going to make an inflammatory statement—is that the people who refer these patients do not know how to examine the patient properly for median nerve function. In most people in the thenar eminence is supplied largely by the median nerve. You can be fooled with your examination because at least one of the posterior thenar muscles, the adductor pollicis, is supplied by the ulnar nerve. There is some common anatomic variance. For example, in 20% of individuals there is an anastamosis in the forearm from the median nerve to the ulnar nerve, with the result that some of the thenar muscles are secondarily supplied by the ulnar nerve.

So what could possibly give you the classical symptoms of CTS from root lesions or brachial plexus lesions? Because there is a C-6 and C-7 distribution of sensory loss. Motor function of the thenar and intrinsic hand muscles are supplied by the C-8 and T-1 groups.

All you really need to make the diagnosis is a history and simple physical examination. If you give patients a marking pen they can map out their sensory deficits, and most of them mark the top of the middle finger as having the most persistent loss. The most sensitive maneuver for picking up the loss is to test the abductor pollicis brevis: the palm is placed toward the ceiling and the thumb is adducted toward the little finger; then the thumb is raised vertically away from the palm against resistance. We know that the distal median nerve supplies not only this muscle but the opponens. If you test the oppenens, you will want to make sure the fingers are brought away from the palm so you can test that muscle; otherwise, if you have it too close to the palm, people are going to be able to cheat their way through and by using the ulnar innervated adductor pollicis will appear to have intact opposition. It is known that 90% of the people with carpal tunnel syndrome have the disease subclinically in the opposite hand. About 90% of individuals have the problem clinically in the dominant hand.

Test a muscle which is innervated proximal to the transverse carpal ligament by having the patient flex the thumb with MP joints stabilized. This is the flexor pollicis longus. Test a couple of C-5 and C-6 muscles to make sure that there is no "double crush" from a problem with cervical spondylosis. (Compressive lesions proximally interfere with the flow transport of axonal filaments and actually crush them in two directions. Characteristically, the "double crush" occurs not at the C-8 root but at the C-6 or C-7 root. The motor deficit remains C-8 and T-1.) Externally rotate the shoulders, testing the infraspinatus, and test the deltoids, the biceps, and the forearm pronators, which are C-6 and C-7. Again, the pronators are supplied by the median nerve. If those are intact, you can be fairly comfortable that the lesion lies distally. I check Tinel's, Phalen's sign (and reverse) because my referring physicians will expect that information in my report. However, they are so falsely negative, so falsely positive I feel they are probably worthless.

What are the major symptoms, motor or sensory? Most of them are sensory. We take advantage of the fact that the large heavily myelinated fibers are most vulnerable to compression, and they are also most vulnerable to electrical depolarization with an EMG. An even more sensitive way of looking at things, above and beyond simple motor and sensory conduction studies, is to do an incremental study. This is done by measuring sensory potentials at 1-cm increments throughout the palm, knowing full well that in some people the entrapment varies in location. At the likely site of compression, sensitivity is increased from 75% to 90%.

Surgery for CTS

Dr. McDowell: The surgeon must remember the palmar cutaneous branch of the median nerve when operating. If he does not, there is going to be a problem afterwards, a very serious problem.

One should always remember that the volar carpal ligament is a likely cause of median nerve compression, and an operation which merely divides the transverse carpal ligament but leaves or ignores the volar carpal ligament may have either a good result or a very poor result because the nerve, if there is a space-taking lesion of some type in that tunnel, will be kinked underneath at the sharp edge produced by the surgeon with a pair of scissors. I have a patient who after an operation for median nerve compression syndrome had all the symptoms and signs persisting and unmodified except she had a wound. The surgeon had performed an inadequate or incomplete operation. To clarify, the transverse carpal ligament begins proximally at the distal wrist flexion crease and extends just about halfway to the mid palmar or the proximal palmar flexion crease. It is very difficult to get to, especially with a "blind" operative approach, even though some surgeons still use this technique. Without adequate exposure the risk of injury to the median nerve or to the motor branch of the median nerve or any of its other branches is exceedingly high. Because of this patient's continued problems we reoperated. With complete visualization, it was obvious the median nerve was narrowed and hyperemic. There was also scar tissue, which had to be divided.

Another patient had median nerve decompression but, again, the problems persisted. At a second operation, the transverse carpal ligament was still intact!

Another case amplifies a serious sequela from surgery using the unfortunately named "typical incision." The patient still had symptoms and signs of median nerve compression following surgery. In this case the surgical incision unfortunately extended to the radial side of the palmaris longus. Since the central branch of the median nerve travels through this area, this patient developed palsy of this branch, producing not only numbness in the area of the base of the thumb but a terrific amount of hyperesthesia. Therefore, incisions should avoid crossing this area. If you keep the incision to the ulnar side of the palmaris longus extended in the midline almost to the base of the ring finger, you will avoid these problems.

In 20% to 25% of cases there are classic signs and symptoms of CTS but the EMG is negative. Surgery has been successful in producing relief of symptoms in most of these, but that is a bit risky, and I add the corticosteroid injection test, i.e., injecting the carpal tunnel, which almost always relieves CTS symptoms. It is an excellent clinical test.

If the symptoms are mild or moderate and there is no evidence of sensory loss or thenar atrophy, I treat conservatively with splints or corticosteroid injections. If the symptoms are acute, severe, or chronic, I operate.

Selected references on request.

Carcinoma of the Prostate: Treatment Options and Controversies

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A variety of treatment methods is available for patients with clinically localized prostatic carcinoma. The challenging task is to define and prospectively identify who will achieve maximum benefit from which therapy.

PROSTATIC cancer occurs in a population affected by multiple mortality factors, both malignant and non-malignant, both acute and chronic. The natural history of prostatic carcinoma is also characterized by a great variability in biologic potential, requiring large patient groups and extensive follow-up periods for adequate assessment of therapeutic efficacy. In addition, staging and treatment methods have been largely non-uniform. It is no wonder, then, that treatment options in carcinoma of the prostate are rather easily enumerated while treatment comparisons are somewhat confusing and incomplete.

Diagnosis and Staging

Carcinoma of the prostate is often diagnosed by biopsy confirmation of findings at routine physical examination or, incidentally, by transurethral resection of the prostate (TURP) for benign prostatic hypertrophy. Once the diagnosis of adenocarcinoma of the prostate, is established, including the pathologic tumor grade, a series of tests follows to determine the extent of local-regional disease and whether distant metastases are present. The most commonly used clinical staging systems take into account the size of the tumor and its extension to surrounding structures. The Fowler-Whitmore staging classification is frequently employed:[1]

A2—Tumor well differentiated in more than three chips or any moderately or poorly differentiated tumor in chips removed for presumed benign disease

B1—Tumor 1.5 cm. or less in diameter and limited to one prostatic lobe

B2—Tumor greater than 1.5 cm. in diameter or involving more than one prostatic lobe

C—Tumor with evidence of extension beyond the prostatic capsule or involving the seminal vesicles

D1—Regional lymph node metastasis

D2—Distant metastasis

Accurate evaluation of early capsular invasion and seminal vesicle involvement, both of which are essential in staging primary disease and selecting appropriate therapy, is possible only in patients who have undergone radical prostatectomy.[2] Middleton has reported that "when examination of a radical prostatectomy specimen discloses that the tumor is totally confined to the substance of the prostate and has not penetrated the prostatic capsule or extended microscopically into the seminal vesicles, likelihood of long-range survival free of disease is excellent."[3] It is indeed unfortunate that this prognostic factor cannot be more widely applied. Pathologic grading has been incorporated into clinical staging (A2) because of its importance in predicting the biologic behavior of the tumor.[4]

The status of the regional lymph nodes is essential for staging any malignant tumor since this information aids in treatment selection. Techniques such as pelvic lymphangiography (LG) and computerized axial tomography (CAT) may help in evaluating the pelvic lymph nodes in patients with presumably localized carcinoma of the prostate. Both LG and CAT are of value only in relatively advanced nodal disease, however, and pelvic lymphadenectomy is actually the most accurate means of staging the regional lymph nodes in patients with prostatic cancer.[5]

Neither an elevated serum acid phosphatase level nor an elevated serum level of the prostatic fraction of acid phosphatase is specific for malignant prostatic tumor, and neither can be used alone to assess the possibility of disseminated disease.[6] This laboratory data can, however, be correlated with a radioisotopic bone scan which, when positive, suggests an incurable condition.

Treatment Options

Prostatectomy and Pelvic Lymphadenectomy. Prostatectomy involves the removal of the prostate, the prostatic capsule, and the seminal vesicles, while pelvic lymphadenectomy usually refers to bilateral extraperitoneal pelvic lymph node dissection, including the distal common iliac, the external iliac, and the obturator lymph nodes. Prostatectomy may be performed by perineal or retropubic approach. Arduino

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and Glucksman emphasize that retropubic extravesical removal of the prostate permits lymphadenectomy.[7] Middleton advocates a two-step approach whereby staging lymphadenectomy precedes radical perineal prostatectomy, which is performed three to five days later as a second procedure if the lymph nodes are microscopically negative. Therefore, if the lymph nodes are pathologically positive, the patient will be spared the additional surgery.[3]

Until recently, 90% of patients treated by radical prostatectomy experienced impotency postoperatively. A technical modification of the radical retropubic approach has now been established which spares the branches of the pelvic nerve plexus that autonomically innervate the corpora cavernosa.[8] Using this procedure, Walsh reports preservation of sexual function in 70% of patients overall, although those with periprostatic and seminal vesicle involvement retained potency at a much lower rate since the primary surgical objective was removal of all tumor, which often necessitated nerve sacrifice.[9]

Radiation Therapy. Long-term survival data is now available to support the claim that radiation therapy can be "curative" in prostatic cancer and is a viable alternative to prostatectomy in patients with clinically localized disease.[10,11] A wide variety of radiation techniques and protocols are currently available, with the most popular being: 1) megavoltage external beam irradiation, usually via a Cobalt-60 unit or a linear accelerator,[12,13] 2) interstitial irradiation using an iodine-125 seed implant to the whole prostate with staging lymphadenectomy,[14] 3) transperineal, temporary iridium-192 prostatic implant,[15] and 4) gold grain implantation throughout the prostate but clustered in tumor nodules.[16] Gold and iridium implants are also accompanied by pelvic lymphadenectomy and followed by external beam irradiation to the whole pelvis (if lymph nodes are positive) or to the prostate only (for negative lymph nodes).[15,16]

Endocrine Manipulation. The responsiveness of prostatic carcinoma to hormonal manipulation has been firmly established as has its palliative benefit in relieving symptoms associated with the most prominent site of prostatic tumor dissemination, the axial skeleton. The main aim of hormonal therapy is to suppress the androgenic stimulation of the tumor cell. This can be accomplished through any one of several methods, each with its own side effects.[17] Orchiectomy directly removes the major source of testosterone production. Estrogen administration inhibits pituitary gonadotropin release. Gonadotropin-releasing hormone (GnRH) analogues, such as leuprolide acetate (Lupron™) induce an initial pituitary overstimulation with increased gonadotropin release; however, with continued administration, the number of hypophyseal GnRH receptors diminishes and the pituitary becomes depleted of the gonadotropins LH and FSH.[18] Interference with androgen action at target tissues, in particular blocking the intracellular uptake or the nuclear receptor binding of testosterone, is the mode of action of the antiandrogenic compounds such as flutamide.[19]

Controversies

Recent trends in the management of prostatic carcinoma are indentified in the long-term and short-term surveys of the American College of Surgeons Commission on cancer as reported by Murphy et al.[20] With more than 34,000 patients enrolled, the reported data revealed that hormonal therapy, either alone on in combination with surgery or radiation, was the treatment most often used in the long-term survey (through 1974), while patients underwent TURP more frequently than hormonal manipulation in the short-term survey (through 1979). In the 1979 series, the use of radiation therapy increased, and there was a greater number of patients with very early (A) and advanced stage (D) disease, perhaps reflecting improved diagnostic techniques. Furthermore, there was little controversy in the management of patients with stage A1 (occult, well-differentiated adenocarcinoma in less than three chips in TURP specimen) and stage D tumors. However, stage A2, B, and C disease was treated by a great variety of modalities reflecting, understandably, the bias of each particular specialist. It is especially important, therefore, to address the controversies associated with the treatment of these clinically localized prostatic tumors by stage.

Stage A2. Patients with clinical stage A2 prostatic carcinoma have an incidence of pelvic lymph node metastasis and microscopic seminal vesicle involvement which is similar to patients with stage B2 disease.[21,22] Since these two factors strongly influence prognosis, reclassification within the staging system has in fact been suggested.[23] Jewett and Walsh have warned against radical prostatectomy for patients with stage A2 disease.[22,24] However, Middleton recommends this operation if the pelvic lymph nodes are pathologically negative.[3] Data on the effectiveness of radiation therapy in controlling stage A2 disease is quite limited. Therefore, the best treatment for patients with stage A2 prostatic tumors has not yet been determined. The National Prostatic Cancer Project, under the directorship of G. P. Murphy, MD, is currently conducting a prospective, randomized study to address this dilemma. In this study, patients with clinical stage A2 tumors and pathologically negative lymph nodes will be treated with either prostatectomy or radiation.

Stage B. Radical prostatectomy, external beam radiation, iodine-125 implantation with lymphadenectomy, and gold-198 and iridium-192 implantation combined with external beam radiation have all been used to treat stage B (B1 and B2) carcinoma of the prostate. Since staging pelvic lymphadenectomy has been performed infrequently in patients treated with external beam radiation, any comparison between patients treated by this modality and those treated surgically

becomes rather inconclusive. Furthermore, in patients treated with any form of irradiation, external beam or radioisotopic implant, one never obtains accurate information on capsular invasion and early seminal vesicle involvement, both of which have a major impact on prognosis. A report of a radomized clinical trial conducted by the Uro-Oncology Research Group is frequently cited in the urological literature.[25] The study compared megavoltage radiation and radical prostatectomy in stage B prostatic cancer with treatment failure defined not as local recurrence but as evidence of distant metastasis. Results suggested that radical prostatectomy was superior to radiation treatment in patients with localized tumor. Criticism of this conclusion was based on the following valid points:[26] 1) Only 27 patients in each study arm had been followed for a sufficient period of time for a meaningful comparison. 2) The 30+% distant recurrence rate at 18-36 months after radiotherapy is noticeably higher than that reported after curative irradiation in similar series and even higher than that expected after no treatment at all, indicating that a selection bias may have contributed to the failure rate. 3) Significant differences in survival rate normally exist within stage B patients relative to the tumor burden. 4) Local recurrence rate was not reported. Also of note is that the number of patients who are generally thought to be suitable for radical prostatectomy is quite limited. By strictest criteria, only patients with stage B1 lesions (at most, 10% of all patients with prostatic carcinoma) are optimal candidates for extirpative surgery.[27]

From H. W. Herr's discussion of the treatment options for stage B carcinoma of the prostate, "one may conclude, as an optimist, that a variety of treatments offer similar prospects of benefit, or, as a pessimist, that none of the treatments is producing a significant beneficial effect and that the survivals are a consequence of the natural history of the disease."[26]

Stage C. While it seems illogical to assume that patients with stage C disease, which implies tumor extension outside the prostatic capsule with infiltration of periprostatic tissue, might be cured with radical prostatectomy alone, long-term, disease-free survival has been reported in patients with stage C disease treated by this modality.[28] In many published series, however, adjuvant therapy, hormonal and/or radiation, was used in conjunction with surgical treatment. Although endocrine manipulation is not curative, the Veteran's Administration Cooperative Urological Research Group did demonstrate that both estrogen therapy and orchiectomy are effective in retarding tumor progression in stage C patients.[29]

Bagshaw (Stanford series) has reported the actuarial survival of 358 patients with stage C prostatic carcinoma treated with external beam irradiation.[11] The 5-, 10-, and 15-year survival rates were 60%, 36%, and 22%, respectively. In comparison, 5-year survival with hormonal therapy alone approaches 50%,[29] and according to the Rotterdam Radiotherapy Institute studies reported in 1976, survival rates with hormonal therapy versus radiotherapy were comparable.[30] Noteworthy, however, is the improvement in survival following definitive prostatic irradiation in later years. Stanford reports an overall 5-year actuarial survival of 54% in 1965, 60% in 1973, and 70% in 1983.[31] It is felt that these differences in survival are attributable not only to advances in treatment techniques but also to improvement in the detection of metastatic disease resulting in fewer patients with undiagnosed osseous metastases undergoing definitive irradiation.

In conclusion, then, a variety of treatment methods is available to patients with clinically localized prostatic carcinoma, whatever the stage. Radical prostatectomy, irradiation, and hormonal manipulation have all shown some degree of efficacy. The challenging task, therefore, is to define and prospectively identify who will benefit maximally from which mode of therapy.

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Operative Choices in Morbid Obesity

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Morbid obesity has been clearly shown to be associated with many serious medical[1] and psychological problems[2] as well as a significant decrease in life expectancy.[3] Behavioral modification and dietary programs are usually only temporarily successful, as recidivism with weight regain will occur in almost 95% of individuals.[4] Surgery for morbid obesity was initially achieved with the jejunoilieal (JI) bypass operation, in which 90% of the small intestine was bypassed. This bypassed intestine was then drained into the large bowel, usually the transverse colon. Although an effective procedure for weight loss, it was associated with an unacceptable number of complications, some fatal, including cirrhosis, interstitital nephritis, arthritis, recurrent kidney stones, bypass enteritis, electrolyte imbalance, etc.[5] Most of these complications appeared to be secondary to bacterial overgrowth in the "blind limb" of intestine.

Gastric procedures for morbid obesity were initially proposed 20 years ago and include various types of "gastroplasty," in which the stomach is partitioned into a very small and a large pouch connected by a small stoma, and the "gastric bypass" (GBP) procedure, in which the stomach is stapled completely shut and a Roux-en-Y limb, or loop of jejunum, is anastomosed to the proximal gastric pouch.

Previous studies have found that the gastric bypass was a more effective procedure for weight loss than a gastroplasty.[6-8] This was often attributed to mechanical problems of the gastroplasty procedure, such as stoma or pouch enlargement. More recently, the vertical banded gastroplasty (VBGP) has been proposed, which is characterized by a vertical 50-ml pouch and 1-cm diameter stoma, reinforced with Marlex mesh.[9] In a randomized, prospective trial, we compared the VBGP to a Roux-en-Y gastric bypass. Twenty patients underwent each procedure. Randomization was stopped nine months after the trial was started, when a significantly ($p < 0.05$) better loss of excess weight was noted with GBP than VBGP. When all patients

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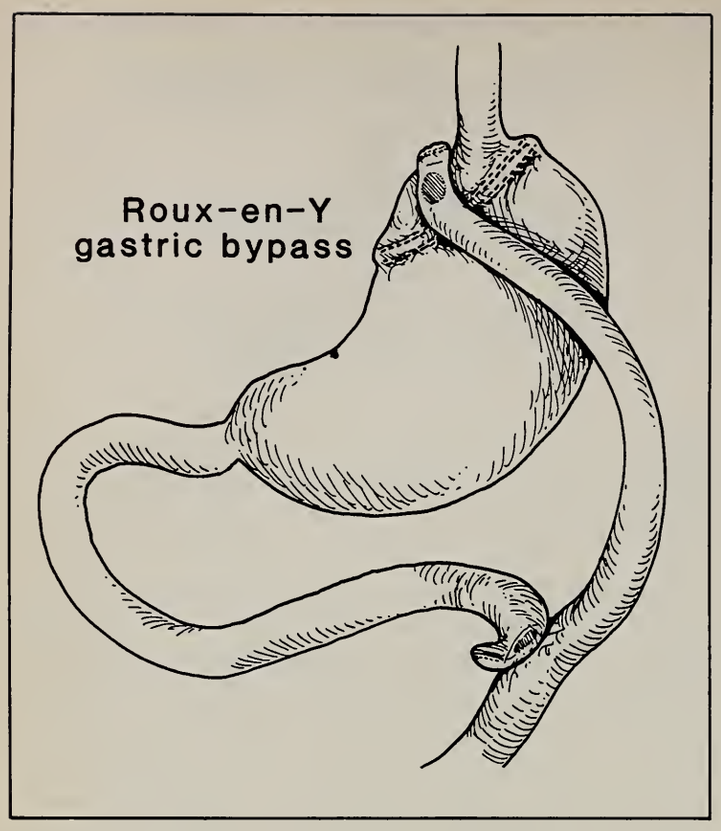

had reached one year since surgery, the difference had become even more significant ($p < 0.01$), with GBP patients having lost 68 ± 17% of excess weight vs VBGP patients, who lost 43 ± 17% of excess weight. The difference was similar at three years, 64 ± 20 for GBP and 37 ± 18 for VBGP.[10]

It was noted that several patients did extremely well after their VBGP whereas the majority did very poorly, having lost very little weight. Upper gastrointestinal radiographic series (UGI) and/or endoscopy revealed that only one VBGP patient had disrupted the staple line. The reason for failure appeared to be the ability of VBGP to tolerate high-calorie carbohydrate beverages (Coca-Cola, milk shakes, Kool-aid, etc.) and candy whereas GBP patients developed nausea, flushing, light-headedness, and diarrhea with the ingestion of sweets, i.e., the dumping syndrome. Thus, at one year GBP patients who were identified by our dietitians prior to surgery as being addicted to sweets lost 69 ± 17% excess weight in contrast to a similar group of sweets-eaters who underwent the VBGP and lost 36 ± 13% ($p < 0.0001$).[10] It has subsequently become our policy to perform VBGP on "gorgers" and GBP on "sweets-eaters."

We have noted that approximately 12% of our GBP patients fail to lose more than 40% of their excess weight, despite an intact stoma and staple line. These patients were noted by our dietitians to be "junk-food nibbleholics," with the frequent ingestion of small amounts of pretzels, potato or corn chips, popcorn, etc. These patients probably need a combined restrictive and malabsorptive procedure. We are currently offering this small subset of patients a "distal gastric bypass," which is a modification of the biliopancreatic bypass procedure developed by Scopinaro in Italy and currently the most popular operation for morbid obesity in Europe.[11] In this procedure, a small stapled gastric pouch is created which is usually larger (200 cc) than the gastric pouch with the standard proximal gastric bypass (50 cc). The small intestine is transected 2.5 meters from the ileocecal valve and anastomosed to the gastric pouch. The bypassed proximal small intestine is reconnected to the ileum 50 centimeters from the ileocecal valve. In this manner, the amount of food ingested is partially restricted and most of the food that is eaten passes down the small intestine, mostly undigested and unabsorbed, until 50 centimeters from the cecum, at which point it meets with bile and pancreatic juice where digestion and absorption occur. In Europe, this procedure is performed with a subtotal distal gastrectomy because of the fear of gastric acid hypersecretion in the bypassed stomach. We have found that acid and gastrin secretion remain quite low, obviating the need for gastrectomy.[12]

Complications

We have performed more than 500 procedures with a 0.5% early and a 1% late mortality. This includes 50 patients with the Pickwickian syndrome who have undergone surgery with a 2% mortality. Most of the late deaths occurred in patients with severe cardiovascular disease. Ten percent of our 75 VBGP patients have developed stomal stenosis. Three of these patients have required conversion to GBP because of the failure of endoscopic dilatation. Five other VBGP patients have been converted to either proximal or distal GBP, because of inadequate weight loss. Of 210 proximal gastric bypass patients, 20% developed stomal stenosis (all responded to endoscopic dilatation) and 8% a marginal ulcer (all but three responded to an H_2 blocker). Of greater concern, GBP patients have a significantly greater risk of Vitamin B_{12} and iron deficiency anemias, both of which usually respond to supplemental oral therapy. The distal gastric bypass should theoretically have all of the proximal GBP risks (i.e., stomal stenosis, marginal ulcer, B_{12} and iron deficiencies); however, only one of the 21 patients who have had the procedure has developed a small marginal ulcer, but it is too soon to know the incidences of these complications. The distal GBP will, however, have an additional risk of protein deficiency since there is limited exposure to proteolytic enzymes. This can usually be overcome with supplemental oral Pancrease® (pancrelipase).

Conclusion

In conclusion, several gastric operations have been developed for the treatment of morbid obesity: the vertical banded gastroplasty (VBGP), the proximal gastric bypass (P-GBP) and distal gastric bypass (D-GBP). We have found that these operations should be selectively recommended for patients whose eating

patterns are: gorger (VBGP), sweets-eater (P-GBP) and junk-food nibbler (D-GBP). These patients are almost invariably thrilled with their loss of appetite following surgery, as well as the disappearance of their addiction to sweets. In our experience, significant weight loss has caused reversal of symptoms in the Pickwickian syndrome (obstructive sleep apnea and/or obesity hypoventilation syndrome), adult onset type II diabetes, hypertension, venous stasis ulcers, stress overflow urinary incontinence, gastroesophageal reflux, pseudotumor cerebri, menstrual irregularity, infertility and hirsutism. It has markedly improved the patients' psychological and marital status, including self-image, acceptance by peers and employability.

We are currently evaluating the newer "gastric bubble"[13] for the treatment of morbid obesity and comparing it to surgery. Based upon our data, as well as the surgical literature, it is my hypothesis that patients will be able to drink sweet liquids and nibble around the bubble. Furthermore, when the bubble is taken out after one year as required by Food and Drug Administration regulations, it is most probable that these patients will regain their lost weight, as in our patients who disrupt their staple line (1%), have their JI bypass taken down, or have their teeth unwired. The "gastric bubble" treatment modality requires urgent validation since it has become so popular. It may have a place in treating patients with severe cardiovascular disease or pulmonary insufficiency to get them into better shape for a definitive surgical procedure.

There is a large amount of data to suggest that morbid obesity has a strong genetic basis[14,15] and is probably not a result of excessive oral dependency. Non-surgical treatment will depend on determining the biochemical basis for the problem, with the hope that pharmacological therapy can be developed. The different operative procedures are probably releasing gut hormones that allow the development of satiety or the avoidance of sweets. At this time, surgery is the only proven effective treatment for patients with morbid obesity.

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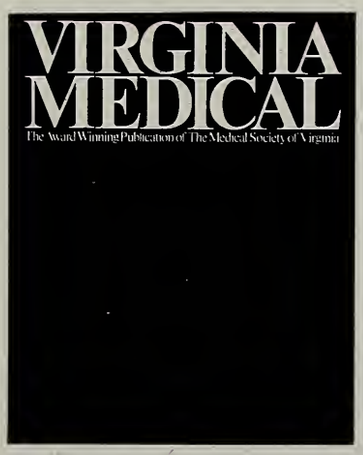

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Myocutaneous Flaps for Improved Surgical Management of Body Wall Lesions

Juan M. Montero II, MD,
and Glenn R. Carwell, MD,
Chesapeake, Virginia

LARGE full-thickness wounds of the thoracic and abdominal walls often result in fatal outcome. Respiratory compromise, peritonitis and other major complications are the feared sequelae of such injuries. Historically, reconstructive efforts have been based on random skin flaps, which have a tenuous blood supply. Potential necrosis of these flaps is an inhibiting factor in clinical application of appropriate surgical procedures.

The recent development of myocutaneous flaps by plastic surgeons has greatly expanded the freedom of surgical excision by providing reliable reconstructive techniques. Selected[1,2] muscles based on their blood supply can be moved, along with their overlying skin and soft tissue through an arc[3] to repair almost any part of the body. The predictable healing of these flaps makes repair of full-thickness body-wall lesions a safer procedure, both in emergency and elective situations. The thoracic and abdominal walls may be reliably repaired in a community hospital setting by combining[4,5] the techniques of general-thoracic/plastic surgeons.

During the past five years we have used myocutaneous flaps for ten full-thickness body-wall defects requiring reconstruction (Table 1). All patients have survived and complications have been minimal. Followup ranges from nine months to five years. The following two cases illustrate the salient features of the combined general-thoracic/plastic surgical approach we have used.

Case Reports

Case 1. A 66-year-old retired nurse with a full-thickness right lower-quadrant abdominal wall carcinoma was admitted with a draining, ulcerated skin lesion in the right lower quadrant. The presumptive diagnosis was stitch abscess related to her sigmoid resection nine years previously for carcinoma and subsequent repair of an incisional ventral hernia. Barium enema showed an 8-cm lesion of the cecum with no evidence of bowel fistula. Colonoscopy and biopsy of the lesion revealed carcinoma with additional findings of multiple polyps. The patient underwent total abdominal colectomy with ileostomy at the left upper quadrant and a low Hartmann's pouch. There was a large polyp at the upper rectum which, on frozen section examination, was a villous adenoma with carcinoma in situ. Biopsy of the right lower quadrant soft tissue lesion revealed adenocarcinoma consistent with direct invasion from the cecal lesion. The tumor was completely removed grossly and shelled out from the abdominal wall invasion. Abdominal exploration revealed no distant metastatic disease. Following surgery the patient did well and was discharged with instructions to have radiation treatment to the right lower quadrant lesion. She received a total of 3000 rads over four weeks. After this dose the radiation oncologist advised that additional radiation would not be curative and resection was indicated.

She was readmitted and underwent a successful excision of this lesion with immediate reconstruction of the abdominal wall using a rectus[6] femoris myocutaneous flap. Abdominal exploration again showed no evidence of metastatic disease. Resection of the lesion with adequate surgical margins required excision of a

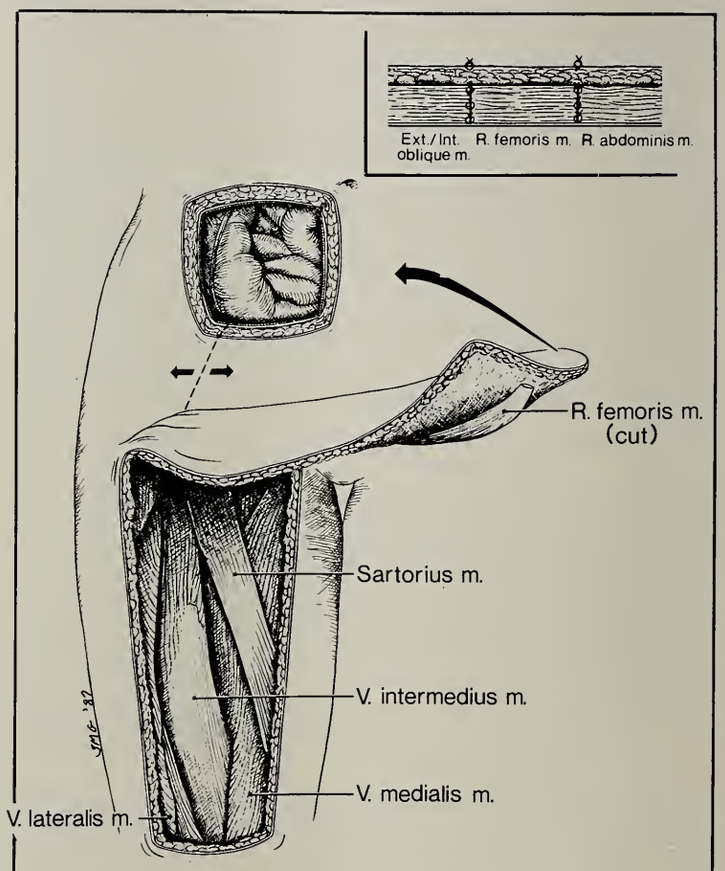

Fig. 1. Operative plan for abdominal wall resection with rectus flap reconstruction.

From the Department of Surgery (Dr. Montero) and the Department of Plastic and Reconstructive Surgery (Dr. Carwell), Eastern Virginia Medical School, Norfolk. Address correspondence to Dr. Montero at 2147 Old Greenbrier Road, Chesapeake VA 23320.

Presented at the annual meeting of the Virginia Surgical Society on April 27, 1986, in Hot Springs, Virginia.

	PATIENT	AGE	SEX	DIAGNOSIS	PROCEDURE	COMPLICATIONS
1.	L.M.	54	F	recurrent incisional hernia	repair with tensor fascia lata flap	0
2.	S.B.	37	M	pelvic fracture with hernia	repair with TFL flap	0
3.	M.McV.	66	F	Ca. RLQ	resection + rectus femoris flap	0
4.	H.B.	73	M	mesothelioma chest wall	resection + latissimus flap	effusion
5.	W.A.	62	M	transitional cell bladder Ca.	full thickness resection + rectus femoris flap	0
6.	S.E.	46	M	chest wall tumor	resection + latissimus flap	0
7.	S.S.	48	F	perineal Ca.	abdominal perineal resection + gracilis flap	skin graft
8.	F.D.	49	M	abdominal dehiscence, multiple bowel fistulas	bowel resection + TFL flap	0
9.	E.C.	53	M	abdomial ventral hernia	repair with tensor fascia lata flap	0
10.	R.W.	37	M	electrical burn of chest	debridement + latissimus dorsi flap	small skin graft

15-cm^2 block of the right lower quadrant abdominal wall (Fig. 1). Frozen tissue pathologic examination disclosed tumor-free margins in all dimensions. The excised tumor was mucinous adenocarcinoma, well-differentiated. Immediate reconstruction of the wide abdominal wall defect was carried out with rectus femoris myocutaneous flap. The donor site was closed, primarily with large retention sutures tied over a bolus. The flap healed well with a solid reconstruction and no subsequent hernia or other problems. The patient has noted no weakness of knee extension or gait disturbance from the loss of the rectus component of the quadriceps muscle group. Total proctectomy has been performed due to rectal dysplasia, and she remains well at 21/2 years followup.

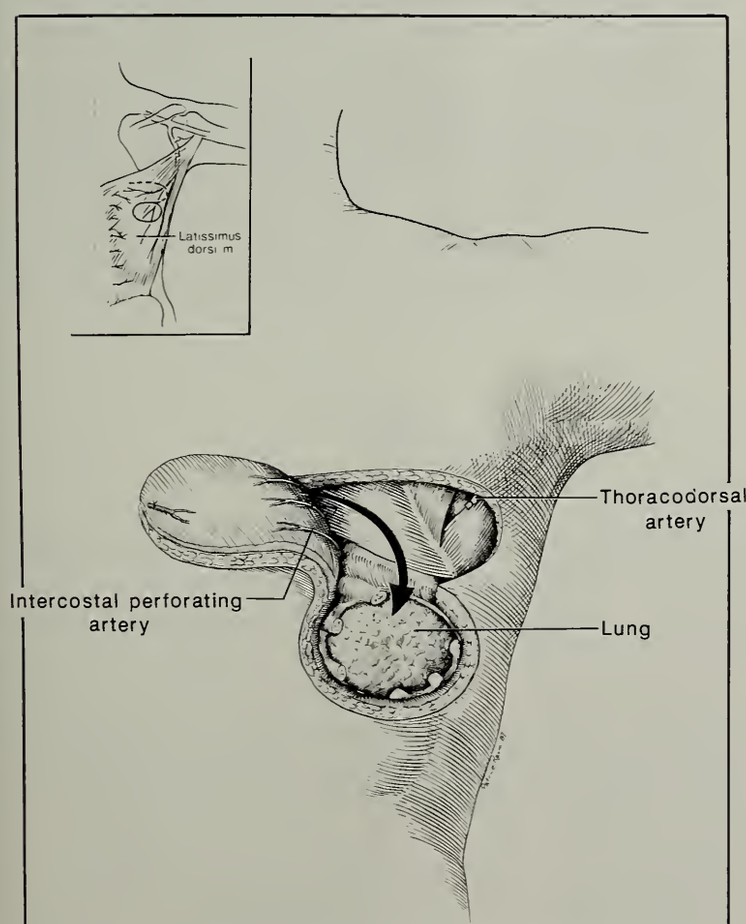

Fig. 2. Operative plan for chest wall resection with reversed latissimus dorsi flap reconstruction.

Case 2. A 73-year-old man with a 12-cm mass of the chest wall on the right posterior lateral aspect was first aware of this slowly enlarging lesion one year prior to admission. He denied pain or tenderness. He was hospitalized for generalized weakness, anorexia and weight loss of 30 pounds.

His chest x-ray showed a large density in the right lower chest with destruction of the 9th rib. Metastatic workup, including CT scan of the head, chest and abdomen, was negative as was a bone scan. He underwent resection of the lesion with wide excision of the chest wall, including four ribs, followed by immediate reconstruction using latissimus dorsi reversed myocutaneous flap. Intrathoracic exploration and biopsies of the pleura, the margins of resection and the mediastimun revealed no metastatic disease. Pathology revealed an undifferentiated malignant tumor. A reversed latissimus dorsi flap was used for reconstruction of the defect with blood supply stemming from the perforating branches of the intercostal arteries due to the location of the lesion (Fig. 2). The flap healed 100% with minimal paradoxical motion. which did not affect his respiratory status. Moderate serous pleural drainage postoperatively was managed successfully with tetracycline through the chest tube prior to its removal. Unfortunately six months later metastases to the adrenals and contralateral lung were discovered and he expired shortly thereafter.

Discussion

The division of responsibilities we have utilized in these procedures requires the general-thoracic sur-

geon to develop a plan for cure or palliation. The application of modern surgical principles and techniques are used along with resolution of ancillary problems, biliary, bowel, vascular, etc. The plastic surgeon contributes operative planning, outlining incision lines, operative options and reconstructive alternatives. The operative reconstruction is accomplished using techniques which give maximum reliability. He also assists in postoperative management to avoid problems with flap pedicle compression, hematoma or other wound complications. This team approach is optimal since the combined techniques of general-thoracic/plastic surgery compliment each other to the benefit of the patient.

The great advantage of myocutaneous flaps for reconstructive surgery rests on the principles of circulatory physiology developed by Poiseuille in the 1800s. Poiseuille was a French physician who studied the flow of fluids through tubes of varying diameters and found that flow volume was surprisingly proportional to the fourth power of the cylinder radius. This exponential factor explains why a flap whose blood vessel is two millimeters in diameter has the circulatory equivalent of a flap containing 16 one-millimeter blood vessels. Many clinical examples of this equivalence are present in the vascular anatomy of our bodies. For example, the latissimus dorsi[7] flap may be supplied very well by its one two-millimeter blood vessel or equally by the four posterior perforating one-millimeter intercostal vessels. With one further step, a three-millimeter vessel has the same circulatory potential as 81 one-millimeter vessels. The great circulatory reserve of muscle tissue with comparatively large arteries makes it uniquely valuable for reconstructive purposes. Initial investigations of muscle physiology beginning with World War I studies of gas gangrene have outlined variations in muscle vascular anatomy, and modern plastic surgeons have taken advantage of these principles of vascular anatomy to develop reliable flaps. Utilizing knowledge of orthopedic principles of muscle substitution can minimize the functional deficit from these donor muscles.

In our series of ten patients with a wide variety of serious surgical challenges these myocutaneous flaps have successfully resolved the problems with a minimum of complications and no postoperative mortality or serious morbidity. There have been no late complications involving the reconstructed areas or donor sites.

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" . . . an outstanding work. . . . For anyone who cares about Virginia or about higher education, this book will be both a pleasure to read and an invaluable source of information." — Edmund F. Ackell, D.M.D., M.D., President, VCU.

The publication of this history of the Medical College of Virginia and the Richmond Professional Institute—which came together in 1968 to form Virginia Commonwealth University—marks VCU's 150th anniversary.

VIRGINIA MEDICAL EDITORIAL

Va Med Update

STATE medical journals naturally differ from national and international medical periodicals; indeed, state journals differ from each other. For example, there is at least one state journal in which no scientific articles appear.

From time to time we like to remind VIRGINIA MEDICAL readers of our stated goals. We try to provide a forum for publication of scientific articles, primarily by and for physicians in Virginia (see present issue). We also focus on news and activities of medicine in Virginia, particularly that involving and affecting The Medical Society of Virginia. Reportage on such news and activities is presented in every issue and particularly in those for October and January, before and after the Society's annual meeting. Finally, we include medical politics as well as state and national politics affecting medicine. Examples include the January, February, and March issues, dealing with issues facing the Virginia General Assembly, as well as actions on these issues, and the June issue reporting on the annual Council luncheon with Virginia Congressmen.

If you, the reader, have other interests, please let us know.

E. L. K., JR.

The Twin Joys of Medicine

As I join my colleagues in deploring the changes in medicine, I realize that economically I may be heading back toward where I started—indeed, toward where I expected to be near the end of my medical career. Those of us contemplating medical careers in the thirties and forties expected to live a pretty hard life. We were motivated by the twin joys of learning and of helping people. Sure, we didn't expect to be actually poor, but very few looked on medicine as a way of getting rich. We followed our inclinations and our role models into various specialties with little thought of which would be more lucrative.

Now that forces beyond our control are changing the way we practice medicine, I keep reminding myself that the double joy is still there: I'm learning fascinating things every day, and every day I can help people in some way. As long as they don't take that away they can't make me sorry I'm a physician. Sure, I detest the constraints being put on the practice of medicine, but there have always been constraints.

When I started practice in 1950 we all took care of a certain number of no-pay and poor-pay patients, and

Modified by the author from the original article, "Double joy' still exists in the practice of medicine," which appeared in the May 8, 1987, edition of American Medical News. Address correspondence to Dr. White at 330 West Brambleton Avenue, Norfolk VA 23510.

attended clinics with no thought of renumeration. It was very frustrating to be able to do so little for patients who often needed so much.

I attended clinics run by the Norfolk City Union of the King's Daughters, who looked after the poorest of the poor. When we saw a child with an infection of any kind, the best we could usually do was to write a prescription for sulfadiazine, which could be obtained from the Health Department in tablet form, to be crushed and gotten into the sick child the best way the mother could. There were a few beds in the clinic building where very sick children could be kept overnight to receive penicillin shots and hypodermoclysis.

King's Daughters never turned a child away, but what we could do for them was severely limited. Of course, things were much worse only 20 years earlier. William Carlos Williams, the pediatrician poet, expressed it with controlled pathos when he told of the feeling of guilt at saving a bright-eyed little girl from a serious disease, knowing she would go back to a foundling home where death was almost inevitable. Now that's talking constraints!

Physicians of my generation saw Medicare and Medicaid come in. We were glad that the elderly and the poor young would be given care, though we knew full well that no system of unlimited medical services could survive indefinitely. The widespread development of private medical insurance expanded our economic base, as well as our ability to offer our private patients maximum care. These third-party payers allowed our hospitals to develop in an unbelievable manner. King's Daughters still turns no child away, but now the typical problem is how to get increased funding for the state-of-the-art intensive care units at its Children's Hospital.

It seems to me that the beginning of the end of the physician's merry economic ride came with the nearly universal adoption of the "usual, customary, and reasonable" (UCR) concept. Each physician would be paid for each visit or procedure the rate that 90% of his colleagues were charging. The trouble was, as soon as that level became known, it instantly became the minimum fee, and everybody kept pushing ever higher until a new UCR was reached, which again became the minimum, and on and on. Further, instead of charging a comprehensive fee for a given service, we found we could split off many items and charge separately for them. "A la carte" billing came in.

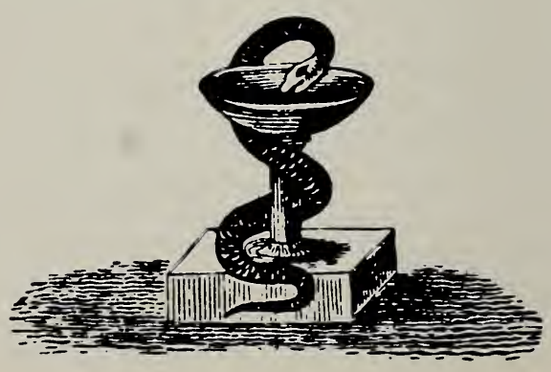
Thanks to insurance, we physicians no longer had to worry much about our patients' ability to pay. Third parties had allowed us to take our services out of the marketplace and charge essentially what we wanted. No matter how conscientious we were, escalation became inevitable.

The surprise is that our comeuppance appeared not from the liberal left but from the conservative right—from businessmen who found that health care costs were severely limiting their ability to compete with imported products. They had to wield the cost-cutting ax, and couldn't worry too much on whom it might fall.

Now we're faced with a whole new set of constraints, and many think we're going back to a two-tiered system of health care. I regret this as much as the next physician. I chafe at government and third-party intervention. But I realize that things are not as bad as they used to be. Our ability to look after our patients is still far ahead of what it has ever been, and our financial status is still far advanced in comparison with physicians in other countries, and with the economic mean in our own. And the scientific wonders we are witnessing every day! Who would have guessed that monoclonal antibodies and balloon angioplasty and gene splicing and other marvels would be part of our daily lives. I hope I never lose the thrill of learning about each new discovery that adds to man's ability to understand the workings of his body, system by system, enzyme by enzyme, even molecule by molecule. Who wouldn't want to be part of that? In the practice of medicine, we can be bit players in that great drama—and still make a good living.

Maybe my attitude is analogous to that of the optimist who, after falling off the top of the Empire State Building, called out to a window washer on the 27th floor, "OK so faaaar." Still, I urge my colleagues to keep a sense of perspective as they read the doom and gloom editorials in every medical society publication. Yes, we've lost some freedom and, yes, there are many battles still to fight. But let us not forget that we're practicing a fascinating and noble profession in a wonderful country. Whatever the forces arrayed against us, let's not allow them to take away that joy.

FORREST P. WHITE, MD



OBITUARY

Memoir of James M. Moss 1917-1987

By C. Robert Meloni, MD

On September 16, 1987, James Mercer Moss, MD, died at the age of 69 years. The passage from recognition of disorder to termination was neither slow nor fast. As he always did, Jim planned what had to be done, made decisions that had to be made, and kept working as much as energy and good judgment would permit. His wit and common sense never deserted him.

Dr. Moss received his MD degree in 1941 from the University of Virginia. After serving during World War II in Europe and North Africa, he continued training in endocrinology and internal medicine. He started practice in Alexandria and joined the faculty of Georgetown University School of Medicine in 1949. During most of his years in practice he attended and was director of the Diabetes Clinic in Georgetown. It was in these early years that he started the studies in the treatment of diabetes that later led to the Pfizer Award of the American Diabetes Association for outstanding contributions to clinical diabetes research and the Seale Award of the Southern Medical Association for outstanding contributions to endocrinology and metabolism.

He was president of The Medical Society of Virginia; the Virginia Chapter, American College of Physicians; the Virginia Society of Internal Medicine; and the Medical Alumni Association of the Unversity of Virginia. The list of his presidencies, awards, and accolades is far more extensive, but he was a person who did not wear them on his sleeve. His colleagues respected him for his work and appreciated him for the helpful advice he dispensed. His patients loved him for the sympathetic care he lavished on them.

He loved his work and the people around him. If a patient got him on the phone, then he was on call, and he always answered the phone. If a colleague asked a question, Jim gave him a reasoned answer. If a colleague had a problem, Jim was helpful. If one had a political question, Jim had a ready answer. If medical economics was the issue, Jim had a strong opinion. There wasn't much in the general field of medicine that he didn't have an interest in, and he was willing to share his knowledge if you were inclined to listen. He was always at ease discoursing on these topics.

James M. Moss, MD,
President, 1971-1972,
The Medical Society of Virginia

His colleagues feel that an institution has dropped from sight. His presence will be missed at local, state, and national meetings. Maybe in his passing he challenges us, as he always did, to rise to his standard on our own.

His patients feel that their physician and friend has left, and this is always untimely. All, with his family, share the sense of loss.

Memoir of James A. Smith 1909-1987

by Willys M. Monroe, MD

James Alexander Smith was born on September 1, 1909, in Sherrard, West Virginia, the son of a Presbyterian clergyman. His early school years were spent in Ohio and Pennsylvania. After high school he worked for four years for the Federal Reserve Bank in Pittsburgh, and for a year did general practice in Dormont, Pennsylvania.

In 1939, Jim was commissioned assistant surgeon, US Public Health Service, in which he served continuously for 26 years. His first duty station was the US Marine (later Public Health Service) Hospital, Norfolk. In 1940 he was detailed to the US Coast Guard, with duty first at the Academy, and

then from 1941 to 1943 as ship's surgeon aboard the cutter "Ingham" on convoy escort duty in the North Atlantic. In 1944 he was quarantine officer in San Francisco. From 1944 to 1947 he was the medical director of the Alaska Native Health Service, which he was instrumental in setting up.

Jim began pathology training at the National specialty until 1963 with assignments at the Public Health Service Hospitals in Baltimore, Detroit and New Orleans for training. After certification by the American Board of Pathology, he served as chief of pathology at the Public Health Service Hospitals in Baltimore and Boston. His final duty assignment was at the Quarantine Station, Staten Island, New York from which he retired with the rank of medical director in 1965. He then served for about a year as associate pathologist at Johnston-Willis Hospital, Richmond; from 1966 to 1971 as director of the Henrico County Health Department; and from 1971 to 1983 as consultant to the Virginia State Department of Health, when a physical disability forced his retirement from professional life. He died on February 16, 1987.

An ordained deacon, Jim always had a close association with the Presbyterian church. In 1940 he married Norma Conwell of Norfolk, who survives him. They had three children, six grandsons and one great grandson.

Traveling was probably his main interest in later life. He read a great deal, enjoyed many forms of music, played the flute, did some photography, and enjoyed his family and friends. He was active in many professional societies and attended meetings until his death.

Jim was a man of uncompromising personal integrity. His professional honesty was more important to him than a job. He was a good man and will be missed.

Memoir of G. F. Elsasser, Jr. 1925-1987

By V. Cofer, MD. R. Evett, MD, O. Edwards, MD, F. Given, MD, and C. Van Horn, MD

George Frederick Elsasser, Jr., MD, Norfolk internist and associate professor of medicine at Eastern Virginia Medical School, died on January 28, 1987, at age 61. He was born in Portsmouth, attended the Norfolk Division of the Colleges of William and Mary, Virginia Polytechnic Institute, and Hampden-Sydney. He received his MD degree from the Medical College of Virginia in 1948. He obtained his postdoctoral training at the US Naval Hospitals in Portsmouth, Bethesda, Maryland, and Charleston, South Carolina, resigning his lieutenant's commission to complete his residency at Duke University.

In 1956, Dr. Elsasser began the practice of internal medicine in Norfolk in partnership with Dr. Vernon Cofer, a longtime friend, thus founding Consultants in Internal Medicine, now a group practice of nine physicians. In 1959, with the assistance of Sister Kathleen of the Daughters of Charity, he established at DePaul Hospital one of the first intensive care units in the nation, and among many responsible positions there, he was chairman of the department of internal medicine from 1961 through 1964. He maintained a lifelong interest in those afflicted with muscular dystrophy and was the director of that clinic at Norfolk General Hospital for many years.

He worked actively for many institutions and organizations, serving as consultant to the Medical Center and DePaul Hospitals, and as a member of the American College of Physicians, American Society of Internal Medicine, American Medical Association, The Medical Society of Virginia, Norfolk Academy of Medicine, and the Council on Clinical Cardiology of the American Heart Association. He was a member of the Larchmont United Methodist Church.

George was a warmly regarded teacher-physician in every nuance of that term, who provided the ill and his students alike compassion, sound thinking, and good humor. He had the remarkable ability to understand and bring differing points of view into acceptable consensus. He was devoted to his family: his wife, Madeline, and their five children—Carolyn, Demaris, George III, Richard and Maryann—and, better than most, refused to allow his busy practice to interfere with his home life and the pursuit of his particular interests, literature, music, sailing and skiing.

His professional skills, concern, unfailing good humor, and fortitude—especially tried during his last illness—were a source of comfort and inspiration to his family, friends and patients. He will be grievously missed by us all.

News of the death of a Medical Society of Virginia member may appear in these pages in either or both of two ways: 1) a brief notice written by staff giving factual information; 2) a memoir contributed by a physician who knew the deceased peer and writes a personal account of his or her life. If the memoir is contributed before the brief notice is inserted, it is published at once; if after, it is set in type to be published as space permits.

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LETTERS

Three say Yes, one says No to mandatory AIDS testing

I enjoyed very much the editorial entitled "AIDS: Politics and Pussyfooting" in the September issue. Dr. Weyl is right on target.[1] Another very interesting editorial entitled "The Four Fatal Myths of AIDS," by Seth L. Haber, MD, was published in the August issue of *CAP Today*, the College of American Pathologists' journal. Dr. Haber's message in summary: "Knowledge, both about the disease and those with the disease, is our only hope to contain AIDS before it overcomes us all. If properly desseminated, knowledge is compatible with compassion, with civil liberties, and with morality. Only knowledge will help to overcome the four fatal myths of AIDS and eventually AIDS itself."

William J. Frable, MD

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1. Weyl WL. AIDS: Politics and pussyfooting. Va Med 1987;114:543-44

Although short, the editorial, "AIDS: Politics and Pussyfooting", was the article I enjoyed most in the September issue of VIRGINIA MEDICAL.

I probably liked it because I agreed with it 100%. The manner in which we are approaching AIDS testing is asinine. The HIV infection is contagious—no matter to what degree—and should be treated as such. With death as the ultimate "cure" at this time, we should get off the dime and let common-sense public health measures be followed.

Paul Kaufman, MD

2786 North Quebec Street
Arlington VA 33307

I read the editorial about AIDS by Dr. Weyl in the September issue of VIRGINIA MEDICAL. I used to practice in McLean, Virginia, but have been here in Georgia for ten years.

I appreciate the editorial and what needs to be said. I grew up with polio, TBC, and the signs nailed to the front door. I admitted a patent to Arlington Hospital with bulbar polio when I first went into practice. I find it scarey that the doctors here have forgotten all that. Until recently I was considered a little nutty on the

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subject of AIDS, having been debating on the radio, writing letters, and talking at various clubs about the coming epidemic. The public seemed very interested, the doctors seemed not interested. I have debated members of the Hastings Institute and the CDC, but civil rights and the rights of privacy won.

Since then we have had five patients with AIDS at the rural hospital here, so now the staff is interested and is afraid of being contaminated by body fluids, but there is still no interest in the usual epidemiologic steps to control the disease. I figure at least 400 in this county are already infected. At least some states are passing laws to start containing this terrible epidemic.

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In the September issue of VIRGINIA MEDICAL, W. Leonard Weyl, MD, delineates his rationale for mandatory HIV testing of all patients admitted to health care facilities,[1] for the purpose of providing "a safe working environment for our physicians and other health care workers . . . [and our patients]."

Even in the face of information recently released by the Centers for Disease Control, there continues to be little sound justification for this stance. Indeed, rather than enhancing medical care and a safe working environment, there is good reason to believe that mandatory testing would diminish the quality of care, make the work place less safe, and unnecessarily increase the hysteria associated with HIV in the health care environment.

Mandatory testing would likely cause individuals who (justifiably or otherwise) perceive themselves as "high-risk" to delay seeking medical attention, for fear of testing positive.

Mandatory testing of all patients in Virginia, a state currently with a low prevalence of HIV-positivity, runs the risk of an unacceptably high false-positive test rate, with its attendant devastating emotional and social consequences.

Mandatory testing will lead to the development of a "two-tier" medical care system in Virginia, with HIV-positive patients inevitably receiving inferior medical and nursing care. Indeed, Dr. Weyl cites a recent survey demonstrating unwillingness by up to 50% of young physicians and nurses to treat AIDS patients. I do not know that that prerogative is either morally defensible or medicolegally sound.

Mandatory testing for HIV cannot be fairly compared with testing for syphilis, other venereal diseases, tuberculosis, or intestinal pathogens, all of which are medically curable diseases in 1987 and none of which carry social stigmas.

Mandatory testing will *not* render the working environment safer. Test results in some areas may take several days to be completed and reported back to hospital caretakers. HIV-infected patients may test negative during "incubation," not having yet developed detectable levels of antibody.

Further, it has never been demonstrated that the risk of occupational exposure decreases after identification of HIV-positive patients. Indeed, we have anecdotally noted incidents of exposures by health care workers whose "over-cautiousness" with AIDS patients precipitated exposures that need not have taken place under standard infection control measures.

It *may* be reasonable to test patients systematically where higher risks of exposures may be anticipated, e.g., critical care areas; should health care workers there become exposed, information necessary for management and counselling would be more readily available. When a safe and effective treatment for AIDS is developed, routine screening may become justifiable.

In the meantime, however, universal mandatory testing resolves none of the issues its proponents purport to address and risks the creation of a false sense of security for health care workers. Rather, CDC guidelines released on August 21, 1987, recommending that all patients be regarded as potentially infective and suggesting the implementation of "universal precautions," strike the best available balance between provision of optimal medical care and a safe working environment.

Robin I. Goldenberg, MD

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Dr. Frankel remembered: "His warmth, humanity were always there"

Having been fortunate to enjoy a long and pleasant relationship with the late Dr. Charles Frankel, professor of orthopedics at the University of Virginia, I particularly appreciated the splendid memoir composed by two of his former residents for VIRGINIA MEDICAL.[1] Their eloquent summation of the salient characteristics of this talented, caring physician and warm human being was "right on the money."

Dr. Frankel and I first met in 1938, when he was completing his orthopedic residency at the University of Virginia and I was a third-year medical student assigned to his clinic. Several years later, as a surgical resident, I rotated for a four-month period on his service. By that time this large man with the ready smile, the sparkling wit, and now with professorial

status had become a legend beloved and appreciated by all varieties of hospital and medical school personnel. Swinging down the corridors in his wake on rounds, we received an informal lesson in professional relations. As we encountered other teaching entourages, he had an appropriate greeting for all of his colleagues, often a snappy one-liner which rarely failed to elicit a smile from even the most somber professor.

Having participated in college athletics himself from early on, he exhibited a particular interest in sports injuries, and his long tenure as UVa team physician gave him great visibility to thousands of sports enthusiasts across the Commonwealth. Indeed, one UVa professor remarked that only the Founder was more identifiable with the University!

What older football fan will ever forget the oft-repeated scenario of this imposing figure wearing the funny little hat, usually with the unofficial dog mascot of the day (Beta, Seal, or whatnot) trotting unconcernedly at his heels, ambling across Scott Stadium to attend an injured player, or sense the crowd's collective sigh of relief, followed by a standing ovation, as this concerned expert and the trainers assisted the involved athlete to the sidelines.

Whether ever so expertly and gently applying a corrective cast to the deformed limbs of an infant while quietly reassuring the mother; or consoling a grieving student nurse who had just lost her father; or leaving two game tickets at the hospital switchboard for an impoverished resident; or serving as the hospital Santa (and purchasing most of the toys for Pediatrics himself), his warm human qualities were always there.

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1. McCue FC III, Hulvey JT. Memoir of C. J. Frankel, 1908-1987. Va Med 1987;114:552

ERRATUM

The Editors regret the appearance on page 467 of the August issue (Arnold WP et al. Drug-Impaired Physicians: Identification, Intervention, Treatment) a passage that reads: "Although for this publication the information in this manuscript is related to physicians, it is just as pertinent to nurses, dentists, osteopaths, veterinarians, and others in the field of medical care." As the Editors know well, the word "physicians" encompasses osteopaths. We apologize for failing to catch any implication to the contrary.

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MEDIBYTES

NEWS FROM VA MED'S COMPUTER ROOM

AIDS DEBATE, OTHER ACTIONS AT ANNUAL MEETING

AIDS was the riveting subject at The Medical Society of Virginia's annual meeting. Everything else was secondary. Mandatory HIV antibody testing was the focus of most of the AIDS talk--who, where, when to test and what to do with the results, but such related concerns as whether or not to quarantine were heard in the Homestead's hallways, too. Five resolutions relating to the AIDS epidemic had been submitted and assigned to Reference Committee Two. Every seat in the hall was taken for that committee's hearing on October 30; latecomers borrowed chairs from adjoining rooms, stood, sat on the floor.

Some in the audience advocated mandatory testing for all hospital patients, to enable physicians and others to protect themselves against high risk patients. Some urged that everyone applying for a marriage license be tested, or that all college students be tested, or all obstetric patients. Pros and cons were heard about testing the military, and in prisons. And as for those whose HIV antibody test results are positive, it was argued, they should be reported to the State Department of Health for followup and counseling.

Representatives of the MSV Committee on AIDS voiced strong opposition to mandatory testing, citing primarily the unreliability of the available testing method and the critical nature of false results; it is better, said these speakers, simply to treat every patient as potentially infectious. As for counseling everyone who tests positive in a mandatory program, that would be prohibitively expensive if not impossible, they warned--although, it was stressed, skilled counseling is indeed imperative in these cases. This drew the heated rebuttal that the decision should be made on an epidemiologic basis, not on economics.

For two hours opinions such as these generated vigorous debate. Health Commissioner Kim Buttery's views were heard. The AMA's position was explained by President Bill Hotchkiss. Finally Chairman Nicholas Colletti called a halt, and he and his committee members spent a long afternoon reshaping the resolutions; they also approved for adoption five recommendations from the Committee on AIDS, praising them as "the

considered judgment of acknowledged medical and epidemiological experts in AIDS treatment and research."

The next day in the House of Delegates the debate continued, though not as stridently as before. Finally, after amending the language here and there, the delegates adopted both the AIDS Committee's five recommendations and the Reference Committee's seven "Resolved"s. The recommendations:

1) that the Society oppose mandatory HIV antibody screening upon admission to a hospital;

2) that the Society oppose routine HIV antibody testing in conjunction with the issuance of marriage licenses;

3) that the Society endorse HIV antibody testing in prisons only when ordered by a physician on a case-by-case basis;

4) that the Society support the safety measures and guidelines endorsed by the Center for Disease Control, the AMA, the American Hospital Association, and the Surgeon General for all health care workers coming into contact with potentially HIV infected patients;

5) that the Society endorse guidelines for reporting those patients who fit the current or future case definition of AIDS and also those with HIV antibodies confirmed by current or subsequently approved techniques.

The seven-part resolution as adopted:

1) that The Medical Society of Virginia endorse appropriate use of screening tests for HIV antibody and, when available and if proven a valuable adjunctive test, that the Society also endorse the appropriate use of the antigen detection test in conjunction with the confirmatory "western blot" method for detection of antibody against HIV;

2) that The Medical Society of Virginia endorse mandatory HIV testing for the following: a) all donors of human blood, organ or tissue; b) all prospective immigrants to the United States; c) all military personnel;

3) that The Medical Society of Virginia strongly urge voluntary HIV testing for the following high risk groups: a) all high risk candidates for surgical procedures; b) all health care workers who suffer accidental needle stick exposure to blood from an HIV infected patient or who suffer splash exposure to a mucous membrane (eye, mouth) or open cut with blood or other potentially infectious body fluids from individuals infected with HIV; c) all prostitutes; d) all homosexuals or bisexuals; e) all applicants for marriage license who are in a high risk category; f) all patients admitted to hospitals who are in high-risk categories; g) all patients of clinics for drug or alcohol rehabilitation, family planning,

birth control, or sexually transmitted disease; h) the sexual contacts of individuals who test positive for HIV antibody or who are in high risk groups for HIV infection; i) individuals who have shared needles or received tranfusions from those known to be in high risk groups for HIV infection or to be positive for HIV antibody; and j) all individuals in any other identified "high risk" population;

4) that The Medical Society of Virginia encourage all health care professionals to recognize their ethical obligation to care for patients with HIV infection and to provide or arrange for the counseling of such patients as to the means of avoiding transmission of the infection to other individuals;

5) that The Medical Society of Virginia encourage all health care professionals to teach their patients, whether in high risk groups or not, and the public at large to avoid the activities associated with acquisition of HIV infection (indiscriminate or anonymous sexual contact; sharing the use of needles contaminated with another's blood);

6) that The Medical Society of Virginia strongly encourage the Virginia General Assembly to enact appropriate statutes to ensure the confidentiality of records of patients wth HIV infection or AIDS;

7) that The Medical Society of Virginia support the efforts of the Department of Health to obtain funding for increased testing, counseling and tracking in connection with HIV infection.

ELECTED unanimously by the House was this slate of officers presented by Dr. Harvey Smallwood for the Nominating Committee: Glenn B. Updike, Jr., President (see page 726); Dr. J. Thomas Hulvey, Jr., President Elect; and Dr. John A. Owen, Jr., Dr. Donald S. Thorn, and Dr. Ronald K. Davis, vice presidents. Reelected Speaker and Vice Speaker were Dr. William H. Barney and Dr. George E. Broman, Jr. For a list of the entire 1987-1988 leadership, see page 729.

NO RAISE in dues for 1988 was the word from Dr. Michael A. Puzak, chairman of the Finance Committee; the budget for 1988 had been balanced despite diminished revenues. And to his Presidential Address Dr. Richard L. Fields appended the news that the AMA's Board of Trustees, meeting the week previously, had adopted as AMA policy a Membership Incentive Program through which The Medical Society of Virginia is scheduled to receive in 1987, $165,828; in 1988, $124,371; in 1989, $82,914; and in 1990, $41,457. The program is "not specifically for any state," Dr. Fields emphasized, but is designed to help all six of the state societies that have unified with the AMA since

1985. (Both the budget and the Presidential Address are to be published in the January issue.)

1987 WINNER of The Medical Society of Virginia's Physician Award for Community Service was Dr. C. Barrie Cook, Fairfax pathologist and Past MSV President whose good works range from singing in the choir of his church to serving on a regional park authority to heading a Rotary International drive for worldwide polio inoculation to raising funds for Wolf Trap. (More about Dr. Cook in the January issue.)

In the scientific exhibit area, both first and second prizes were won by Roanoke physicians: Dr. David H. Harpole took the blue ribbon for his "Advances in Laser Surgery" display, and Dr. William A. Shaver was close on his heels with an exhibit on "Use of the 'Hot' Knife in Wounds of the Canine Abdomen." To the American Cancer Society, Virginia Division, went third prize for an exhibit on screening for colorectal cancer.

Color TVs, watches, luggage, a video cassette recorder, and an authentic carousel horse were among the dozen prizes offered at drawings in the big commercial exhibit area. Dr. Edwin J. Harvie, Jr., took the recorder home. Dr. Robert H. Cullen and Dr. G. Wilkes Hubbard II won TVs. Dr. William H. Barney, Dr. W. M. Eagles, and Dr. Patricia M. Andrews won timepieces. The horse went to Dr. Ira D. Godwin, and to Dr. Norris A. Royston, Jr., went the set of luggage.

As winner of the golf tourney, Dr. William W. Regan carried off the Society's Challenge Cup, while Dr. Harry T. Johnson won the prize for lowest net. Singles champion of the tennis competition was Dr. Hassan A. Salih; the doubles title was won by Dr. Benjamin R. Allen and Dr. Cheepuloti H. Reddy.

HOT ITEM at the socioeconomic section of the program was a booklet titled "Implications of the New Tax Law on Office Management." R. Carter Scott III, Richmond corporate and tax attorney, prepared the booklet to accompany his talk on the Tax Reform Act of 1986. The supply vanished in nothing flat, but Va Med has ordered more, and if you want a copy, write to New Tax Law, Virginia Medical, 4205 Dover Road, Richmond VA 23221. It's free.

PICTURES taken at the meeting are being prepared for Va Med's January issue, as is a report of all recommendations and resolutions adopted by the House of Delegates. Although AIDS was far and away the most compelling topic, other decisions drew significant attention, such as the following:

1) On the recommendation of the Highway Safety

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Committee, the delegates voted to support legislation providing immunity for physicians who report impaired drivers to the Department of Motor Vehicles. Such legislation, observed the committee, will encourage the reporting of patients whose condition is not compatible with safe driving.

2) The Legislative Committee recommended and the delegates so voted to oppose a) licensure of respiratory therapists and b) any efforts to permit physical therapists to engage in independent practice except upon the direction and referral of a licensed physician.

3) As recommended by the Pharmacy Committee, the delegates reaffirmed the Society's opposition to routine dispensing of drugs by physicians for profit, as specified by the Virginia Code. There was a report that the State Board of Medicine would ask the General Assembly to amend the Code to prohibit dispensing by physicians except in an emergency or when pharmacy services are not available, but Reference Committee Two believed such a change might impact patient care adversely.

4) For certain active or associate members who have been MSV members for ten or more years there were reductions in MSV dues: those under the age of 65 who are fully retired are to pay 20% of the dues rate and those between 65-70 yrs who are still practicing, 50%.

For new doctors, too, MSV dues were reduced: for members in the first year of practice the dues will be reduced by 50% and those in the second year by 25%. Recommendations for the reductions came from the Bylaws and Membership Committees.

5) Medicaid was the subject of several actions by the delegates. The Norfolk Academy of Medicine had submitted a resolution asking that the Society petition Virginia's governor for an immediate moratorium on Medicaid audits. Reference Committee Two advised against this, observing that "the Medicaid program should retain the abiity to protect itself from abuse," and the delegates agreed.

The House did, however, adopt two other items in the same resolution; that MSV support be given to legislation authorizing "a complete and thorough investigation" of the Medicaid system by the General Assembly and that the Society help develop mechanisms of communication and instruction between the Virginia Medicaid program and participating physicians in order to "promote efficient provision of and uniform standards for delivery of care."

The House also adopted a resolution submitted by Dr. H. C. Alexander III committing The Medical Society of Virginia to "actively oppose capitation of the Virginia Medicaid program." --A.G.

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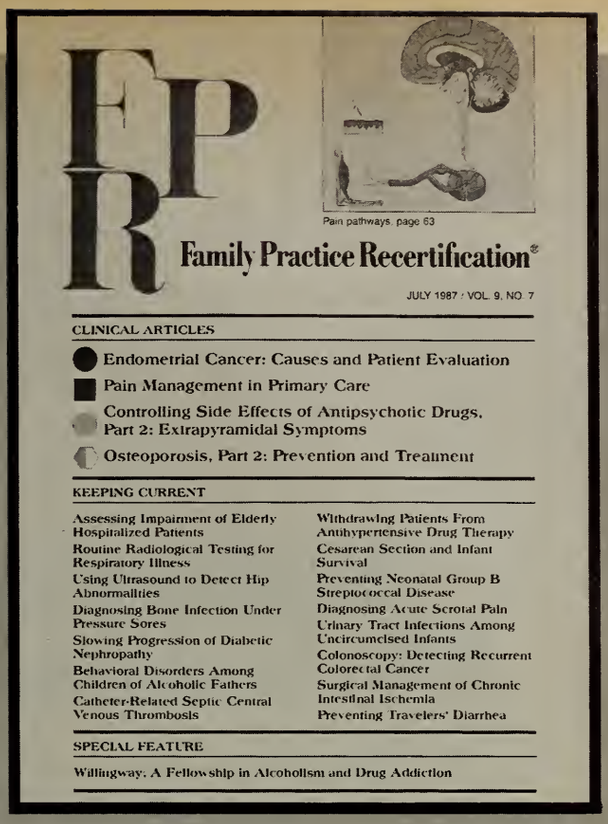
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Pain pathways, page 63

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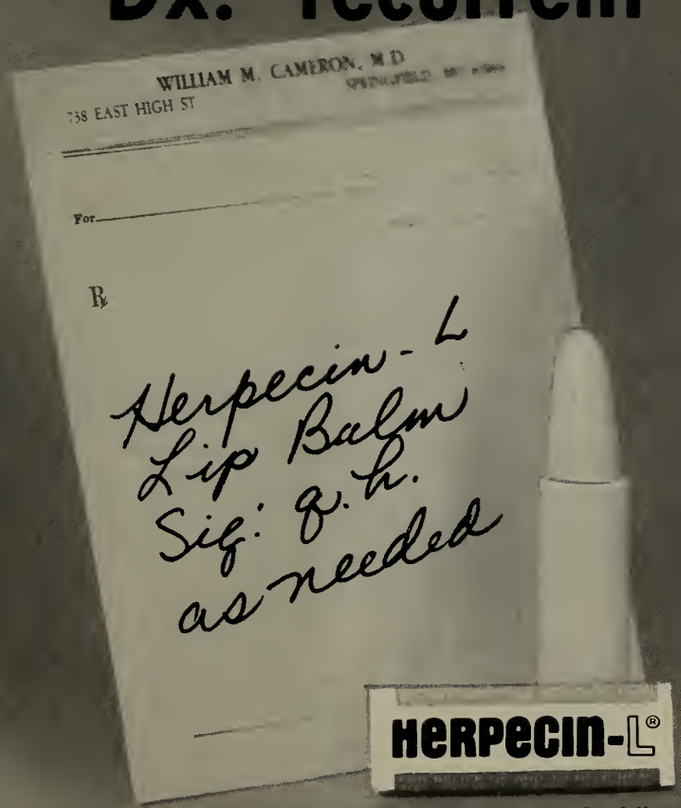

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VIRGINIA MEDICAL
DECEMBER 1987

Immunoglobulin Therapy for HIV-Associated Thrombocytopenia

Marcus E. Carr, Jr., MD, Gregory Parker, MD, and
Burt Adelman, MD, *Richmond, Virginia*

Appropriate treatment of immune thrombocytopenia purpura continues to evolve. Standard therapies may increase the risk of infections. The possibility of spontaneous remission renders irreversible procedures questionable. With a case report, the authors illustrate the advantages and disadvantages of a new avenue of treatment, high dose intravenous gammaglobulin therapy.

The development of immune thrombocytopenia (ITP) in patients at risk for acquired immune deficiency syndrome (AIDS) was first reported in male homosexuals.[1,2] Subsequent reports have demonstrated that thrombocytopenia in homosexuals is frequently associated with HIV exposure.[3] The probable immune nature of the thrombocytopenia has been suggested by the presence of platelet associated antibodies,[4-6] by increased levels of circulating immune complexes,[7] and by the response to standard therapies used for non-HIV related ITP.[3,8-11] Unfortunately, several routine forms of therapy (including steroids, vincristine, and splenectomy) place the patients at increased risk for infection. While this may be an acceptable risk in an otherwise normal host, additional immune compromise in patients at risk for AIDS is cause for concern. Since some of these patients may have spontaneous remission of their thrombocytopenia, temporizing with a less compromising therapy might be beneficial.

The response of acute childhood ITP and chronic adult ITP to high dose intravenous gammaglobulin therapy provides a new avenue of treatment.[12,13] Reports of the use of intravenous IgG in patients with HIV related ITP have been minimal.

We report here the case of an adult patient whose thrombocytopenia, while refractory to corticosteroids and danazol, responded rapidly to therapy with intravenous IgG. Intermittent IgG therapy allowed postponement of surgery for six months during which time it was hoped that a spontaneous remission would occur. He ultimately underwent splenectomy which induced a sustained complete remission of his thrombocytopenia. Reported treatments for ITP in patients at risk for AIDS are summarized and briefly reviewed.

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Submitted 8-5-87.

Case Report

J.M., a 25-year-old white male, was well until one year prior to admission, when he noted bruising with minor trauma. Three months before admission, he developed watery diarrhea, which was evaluated with barium enema and flexible sigmoidoscopy without a resulting diagnosis. Shortly thereafter, he developed several pustular lesions on his legs, and an urticarial rash, both of which spontaneously resolved. Subse-

quently, he developed a "flu-like" illness characterized by fever, marked fatigue, weakness, and a petechial rash on his lower extremities. His platelet count was noted to be 4,000/μL, and he was admitted to his local hospital. Initial treatment included platelet transfusion (20 units) and intravenous methylprednisolone. By the seventh hospital day, his platelet count was 292,000/μL and he was discharged on 60mg/day predisone. After one week, the platelet count had fallen to 69,000/μL, and he was referred to our medical center for evaluation.

A student at a local university, he denied either heterosexual or homosexual activity, IV drug use, or history of transfusion. He had travelled in Mexico, Haiti, and St. Vincent in the previous three years. He denied any illness while abroad. Physical examination revealed a well developed, chronically ill appearing white male with normal vital signs. Multiple petechiae were present on the feet and distal lower extremities and several 2cm circumferential pustular lesions were noted on both thighs. There was no palpable lymphadenopathy. Abdominal exam revealed splenomegaly without hepatomegaly, and the rectal exam was normal. The remainder of the exam was completely normal.

Laboratory data revealed: platelet count 7,000/μL, hemoglobin 14.4 gm/dL, white count 5,300/μL, and Westergren sedimentation rate 2 mm/hr. Serum electrolytes and coagulation screens were normal. Rheumatologic evaluation revealed normal C3 and C4 but elevated C1Q binding EIA (74mcg/AHGeq/mL – normal <12.5). ANA was negative, but immune complexes were elevated by the Raji cell technique (10.0mcg/AHGeq/mL – normal <5.0). HIV antibody was positive by RIA and was confirmed by Western blot analysis. T-cells were reduced at 22.8% (nl 31–57%), T-suppressor cells were elevated at 49.3% (nl 16–41%), and the helper/suppressor ratio was reduced at 0.5 (nl 0.9–3.8). Quantitative immunoglobulins were remarkable for a polyclonal increase in IgG to 1670mg/dL (nl 540–1380). Platelet associated IgG and a gallium scan were normal. Liver/spleen scan revealed only splenomegaly. Numerous megakaryocytes were seen on an otherwise normal bone marrow biopsy. Biopsy of a pustular lesion was consistent with leukocytoclastic vasculitis.

Intravenous gammaglobulin therapy was instituted, 400mg/kg/day for five days, as an infusion of 6% solution over four hours (Sandoglobulin®). Prednisone was tapered and discontinued. By day five, the platelet count was 217,000/μL. Serial counts are shown in Figure 1. By day 24, the count had fallen to 39,000/μL. danazol, 100mg b.i.d., was instituted. After 17 days, the platelet count was 16,000/μL and danazol was stopped. Prednisone was again attempted at 60 mg/day. After four weeks, the platelet count was 23,000/μL. The patient had no bleeding at these levels, and the prednisone was tapered and discontinued. When

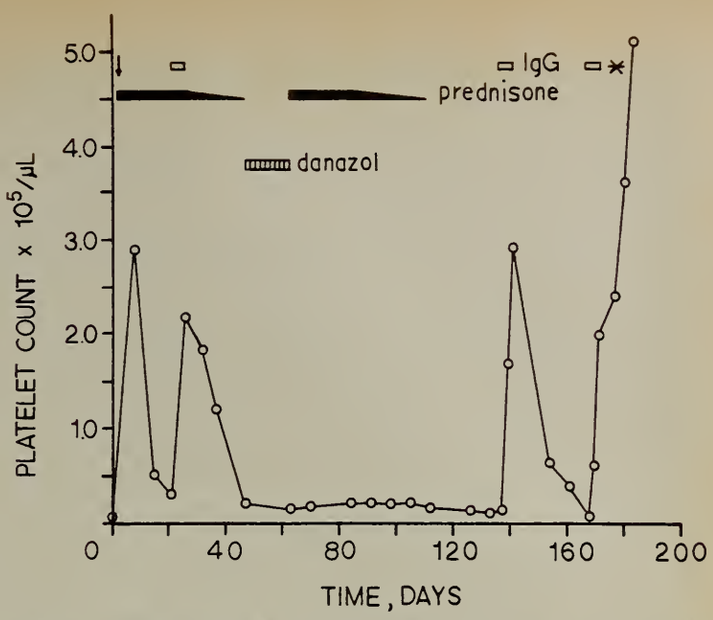

Figure 1. Response of platelet count to various therapeutic interventions in patient with HIV-III related thrombocytopenia. Arrow represents 20-unit platelet transfusion, and asterisk denotes point at which splenectomy was performed.

his count fell to 10,000/μL, he presented with minor gingival bleeding and self-limited epistaxis. A second course of IV gammaglobulin resulted in a platelet count of 289,000/μL. Two weeks after the infusion, the platelet count had fallen to 64,000/μL and the decision to proceed to splenectomy was made. Splenectomy was performed following a third course of gammaglobulin. The platelet count was 241,000/μL prior to surgery, 359,000/μL on the fourth post operative day, and 516,000/μL at discharge. Eight months post splenectomy (off all medications) his platelet count was 220,000/μL. Repeat serology, both RIA and Western blot, performed six months after splenectomy continued to be positive for HIV antibody.

The resected spleen measured 15 by 10.5 by 5 cm, weighed 450 gms, and revealed evidence of lymphoid hyperplasia. The splenic sinusoids were dilated and contained granular eosinophilic debris consistent with platelet destruction. All special stains were negative.

Discussion

The appropriate treatment of immune thrombocytopenia in patients at risk for AIDS continues to evolve. Reported treatments are summarized in Table 1. Standard therapies for adult ITP have generally been effective in this patient population, with two-thirds of patients responding to corticosteroids and up to 80% responding to splenectomy. Other therapies have included danazol, vincristine, and intravenous IgG. Danazol was successfully utilized in one reported case, although our patient did not respond.[14] Vincristine caused increases in platelet counts in three patients who were being treated for Kaposi's sarcoma and who were thrombocytopenic when the vincristine therapy was instituted.[18] Including our case, the number of reported patients treated with high dose IgG has reached nine, and approximately two-thirds have re-

sponded to therapy.[9,16-18] The interpretation of a patient's response to any given therapy is complicated by a significant (12%–32%) spontaneous remission rate.[8,10] In addition, some patients remain asymptomatic, with decreased but stable platelet counts, without therapy. Thus, it is possible that some patients who "responded" to therapy were simply demonstrating the natural course of their disease. Our report is instructive in that we treated our patient on multiple occasions and were able to document on each occasion the dramatic but transient nature of his response.

The finding of splenomegaly lengthened the differential of thrombocytopenia in our patient. Splenomegaly typically results from infection, inflammation, hyperplasia or passive congestion. Intensive evaluation of this patient yielded no evidence of bacterial, viral (other than HIV), or rheumatologic disease. Liver disease was not documented, and pathologic examination of the spleen was negative for myeloproliferative disease. While splenomegaly is unusual in classical ITP, it has been reported in infants with HIV associated thrombocytopenia,[6] in thrombocytopenic homosexual males,[10] and in a hemophiliac with thrombocytopenia and AIDS.[16] Thus, although it demands additional evaluation, the presence of splenomegaly is not inconsistent with HIV associated thrombocytopenia.

The possibility of spontaneous remission of thrombocytopenia in HIV antibody positive patients brings into question the advisability of irreversible therapeutic modalities, such as splenectomy. The impact of splenectomy on the eventual development of AIDS or on the incidence of infections once AIDS develops is not known. Other immunosuppressive therapies, such as steroids and vincristine, may also place the patient at increased risk of infection or malignant complication.

High dose intravenous IgG therapy offers several advantages in patients at risk for AIDS. First, IgG therapy is not immunosuppressive. Second, although experience thus far is limited, no adverse side effects have been reported. Third, it appears to be as effective as standard steroid therapy. Fourth, it may actually improve T-cell function in some patients.[16,19] The major disadvantages of intravenous IgG therapy are its high cost and the nonsustained nature of the clinical response.

If the reported spontaneous remission rate is correct, the best mode of therapy in these patients may be close observation supplemented with intermittent high dose IgG for minor bleeding or for platelet counts below 10,000/μL. Splenectomy could be reserved for patients who 1) do not have stable disease, 2) fail to respond to steroids or IgG, or 3) cannot be closely followed.

Table 1. Response to Treatment of Thrombocytopenia in Patients at Risk for AIDS.

	TREATMENT (# responders/# treated)						
Ref. #	SR	No Rx	Steroids	Splenec.	Dan.	Vinc.	IgG
* (1)[1]			0/1	1/1	0/1		1/1
3 (35)			19/24	10/15			
6 (3)			3/3				
8 (33)	4	12	16/17	10/10			
9 (6)			4/6	4/5			1/2
10 (25)	8	4	5/12	7/7			
11 (1)			1/1	1/1			
14 (1)					1/1		
15 (3)						3/3	0/2
16 (1)							1/1
17 (2)							2/2
18 (1)							1/1
Response Rate (%)	—	—	67%	85%	50%	100%	67%

[1]—total number of patients in the report, *—present study, SR—spontaneous remission, No Rx—stable without therapy, Splenec.—splenectomy, Dan.—Danazol, Vinc.—vincristine, IgG—high dose IV gammaglobulin. gamma globulin treatment.

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Point of View: The Values of Externship

MANY individuals attach a certain mystique to the life of a medical doctor. The thought of opening a private practice, providing an important service to the community, and holding a job that is both socially and financially rewarding give the profession great appeal. Certainly these considerations attracted me to medicine, but in my three years of premedical education I have become aware that idealized views of the medical profession must be balanced with the real concerns associated with the pursuit of a career in medicine.

By word of mouth I have learned a lot about doctors' concerns, many of which are not even medical in nature. For instance, until recently I was unaware of the complex legal aspect of medicine, the fact that most medical students graduate deep in debt, or that a considerable number of doctors find themselves engaged in a struggle between humanitarian devotion and personal limitations.

Although the premed program at the University of Virginia offers no formal method of gaining insight into these concerns, much of the information was to be found indirectly through the program. For example, the program suggests that students become involved in activities outside the classroom, such as hospital volunteer programs. I took advantage of my volunteer experiences with orthopedic rehabilitation and in the emergency room by asking a lot of questions, and I found the medical personnel to be extremely helpful; on more than one occasion I was even allowed the opportunity to observe surgery.

More importantly, the premed program offers students week-long externships with medical doctors. Undoubtedly this has been the most meaningful experience of my premedical education. The doctor to whom I was assigned took great care to ensure I would be exposed to much of what his profession entails. I observed several interesting operations, spent the equivalent of two days working in research, had the opportunity to review and interpret patients' problems, met with patients, and learned what the doctor's course of action would be. I also obtained a basic understanding of how a private practice (of associates) is managed.

I feel better prepared for further study in medicine, yet I wonder whether some students will miss out on the benenfits of these experiences, only to be startled by many of the realities of medical life at some future time. A single course focusing on medical issues could prove beneficial. Such a course would acquaint students with nonscientific aspects of medical careers, including legal affairs, business matters, stress management, continuing education, and family sacrifice. Possibly the externship program could be formalized and extended to all premedical students, which would necessitate not only greater efforts on the part of the premed program but also the willingness of the area's practitioners.

It is my feeling that through such formalization the entire premed program would become more comprehensive, providing its students not only with the foundation of knowledge for formal medical education but also with an awareness of the psychological, social and economic aspects associated with the medical profession.

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MRI Localization of an Undescending Testicle: Case Report

John W. Barnard, Jr., BA,
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John W. Barnard, Sr., MD, and
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CRYPTORCHIDISM, or undescending testicle, is associated with an increased incidence of infertility and carcinoma of the testis.[1] Preoperative imaging techniques to determine the location of the undescended testicle include computed tomography, ultrasonography and, less commonly, angiography. This case report illustrates the usefulness of magnetic resonance imaging (MRI) in localizing the non-palpable testicle. To our knowledge, this is the first reported case utilizing MRI.

Case Report

A 290-pound (132 kg), markedly obese 26-year-old white male was referred for right inguinal discomfort. Physical examination revealed only one palpable testicle within the scrotum.

Magnetic resonance imaging of the pelvis demonstrated the right testicle in the inguinal canal, and the left testicle in normal anatomic position in the scrotum (Figs. 1 and 2). Imaging was performed on a General Electric Signa magnetic resonance unit operating at a field strength of 1.5 Tesla. Axial slices 1.0 cm thick were obtained at 1.2-cm intervals, and coronal images were produced at 1.5-cm intervals. T1-weighted axial images were obtained using a partial saturation technique (TR 600 msec, TE 25 msec).

At surgery the testicle was found in the area of the external ring. Pathological examination revealed a normal testicle 4 cm by 2 cm with only minimal spermatogenesis. No tumor was evident.

Discussion

A non-palpable testis may indicate incomplete descent, dysgenesis or agenesis.[1] Monorchism is found in 4% of children, and anorchism is rare. Other urogenital anomalies may accompany these entities.[2] The normal testis arises from the embryonic gonad ventral to the mesonephric ridge, and descends to the level of the internal inguinal ring by the sixth month of fetal life. By the time of birth, it has migrated through the inguinal canal and into the scrotum.[1] The gonad which fails to descend may be located anywhere in the retroperitoneal space, from the renal hila to the inguinal canal, and is rarely within the peritoneal cavity.[3]

The major significance of the undescended testis is the frequent presence of dysgenic tissue and the associated increased incidence of testicular carcinoma, particularly when the gonad lies within the abdominal cavity.[3] The incidence of malignancy has been reported to be 3.6%-11% of cases,[4] or 12-40 times more commonly than in the normal descended testicle.[1] It is of particular interest that 20% of such neoplasms have occurred in the contralateral "normal" testicle. There is also a higher than normal incidence of infertility in cryptorchid patients.[4]

Surgical treatment by orchidopexy before puberty, preferably prior to age 6, may have a protective effect in both conditions.[4] In older patients, removal of the potentially malignant testicle is the treatment of choice.

Preoperative localization of the undescended testicle is important in surgical planning and reduction of the time the patient is under anesthesia.[1] In the past, elective spermatic venography was the preferred imaging modality. Less commonly, aortography and laparoscopy had been utilized with only limited success. More recently, non-invasive imaging techniques such as high-resolution ultrasonography and computed tomography have been advocated as the techniques of choice.[2,5]

The success rate for selective testicular venography in locating the cryptorchid testis has been reported to be 50%-90%.[5] Real-time ultrasonography has a reported accuracy of 91%,[5] and that of computed tomography is stated to be 90%-96%.ef6

Magnetic resonance imaging, with its ability to demonstrate vascular structures non-invasively in multiple planes, has become an important imaging technique. In this obese patient it proved a most effective imaging choice for a number of reasons:

1. The excessive adipose tissue, which would have seriously degraded ultrasound images, was an advantage in this study.[1]
2. The ionizing radiation inherent in computed tomographic examinations was avoided.
3. The high-resolution coronal images available with MRI afforded excellent vizualization of both testicles and associated vasculature.
4. Compared to computed tomography, MRI offers superior pelvic images free of artifact from the surrounding bones.

A disadvantage to MRI in the pediatric age group is

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Fig. 1 (above). Partial saturation coronal image displays normally descended left testis in scrotum (arrow) and undescended right testis in inguinal canal (curved arrow). Note detail of spermatic arteries and veins.

Fig. 2 (below). Partial saturation axial image displays undescended right testis (arrow) surrounded by adipose tissue in the inguinal canal.

the long scan time. Because motion seriously degrades the image, sedation of the young patient may be required.

Because of the remarkable ease by which our patient's abnormality was demonstrated by MRI, we believe it should be considered as a primary imaging technique in locating an undescended testicle.

Summary

Successful localization of an undescended testicle in a very obese patient utilizing magnetic resonance imaging is described. The advantages and disadvantages of this modality relative to ultrasonography, computed tomography and the older, more invasive procedures are discussed.

The authors wish to thank Mr. Ed McDaniel for his photographic assistance.

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Help for a troubled friend is only a phone call away.

If you suspect a colleague is experiencing problems with alcohol or drug abuse, don't contribute to the "conspiracy of silence," call The Medical Society of Virginia's Physicians' Health and Effectiveness Committee. A non-punitive approach through rehabilitation *is* an alternative. Your report is kept confidential. Ask for Lorraine McGehee at MSV headquarters, (804) 353-2721.

Microsurgery Lab: Key Resource for Training, Research

J. M. Nachbar, MD, M. T. Edgerton, MD, and R. F. Morgan, MD,
Charlottesville, Virginia

Over the past few years, microsurgery has evolved from an experimental science into a useful clinical tool providing the clinical surgeon with new capabilities. The operating microscope has been invaluable in the treatment of complex hand and nerve injuries and in the replantation of amputated parts. Depending on the site of amputation and patient selection, reimplantation can be successful in over 90% of certain finger amputations. In addition, reimplantation at other levels, including the hand and arm, can be performed. Treatment of other complex hand injuries, requiring repair of digital arteries and nerves, is now possible using microsurgical techniques.

Another major advance provided by microsurgery is in the use of free flaps. It is now possible to routinely separate skin, soft tissue, and bone from the body and use this tissue elsewhere, providing arterial and venous supply via microsurgical anastomoses. Thus, in a single operation the plastic surgeon can cover defects which would have required multiple procedures with flaps moved from one part of the body to another by techniques such as the cross leg flap. In fact, it is now quite rare for the plastic surgeon to have to "tie-up" a patient to transport tissue from one part of the body to another.

Departments other than plastic surgery at the University of Virginia have been able to use the clinical resources of the microsurgical lab to further their patient care. The urologist uses microsurgical technique in performance of vasovasostomy and vasoepididymostomy in the treatment of infertility. The gynecologist uses microsurgical technique in exploration and repair of fallopian tubes and in reversal of tubal ligation. The neurosurgeon uses the microscope to perform vascular bypass directly into the intracranial circulation. With these advances, microsurgical training has become an essential part in the training of the surgeon in many subspecialities.

The microsurgical laboratory provides the ideal setting for microsurgical training. In the laboratory, the microscope can be used to practice suturing techniques with inanimate models and laboratory animals. The microsurgical assistant has the opportunity to take the student through a microsurgical course in a progressive and unhurried manner. At the University of Virginia, all plastic surgery residents complete a week-long, intensive microsurgical training course conducted by the microsurgical assistant. In this course, the resident progresses from the handling of 10-0 sutures (22 micron diameter) under the microscope through simple and then complex microsurgical procedures, including interposition vein grafting and the creation and implantation of a free flap in the rat.

In addition, the microsurgical laboratory acts as a training area for residents in other departments. The general surgical resident rotating on the plastic surgery service has the opportunity to take a course similar to that offered the plastic surgeons. Training is provided for residents in the orthopedic, obstetrics and gynecology, neurosurgery and urology programs, and outside physicians are invited to participate in a special intensive microsurgical course similar to that provided to the plastic surgery residents.

The third important function of the microsurgical lab is researching new applications and techniques in microsurgery. Of course, research was once the only function of the microsurgical laboratory, but with microsurgery's rapidly advancing clinical applications, the research functions of the laboratory take on new importance. It is a new and blossoming science, and there is much room for improvement in technique as well as investigation of new applications; the laboratory is the ideal place in which to pursue these goals.

Thus the microsurgery laboratory has been an invaluable addition to the Department of Plastic Surgery at the University of Virginia. It provides clinical support, not only to plastic surgeons but to other specialists as well, and it offers the ideal setting for intensive training in microsurgical techniques and for investigation into new and better techniques and application in microsurgery.

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VIRGINIA MEDICAL
EDITORIAL

President Glenn Updike

It is a singular privilege to introduce the President of The Medical Society of Virginia for 1987-1988, Dr. Glenn Brady Updike, Jr., whose career has been characterized not only by outstanding achievements in the practice of medicine but in long and distinguished service to the Society, to the University of Virginia, to his community, and to the careers of a Virginia senator and two governors. He is eminently equipped to continue The Medical Society of Virginia's tradition of strong and effective leadership.

Glenn Updike was born in Danville, Virginia, on December 25, 1926. His father, a pharmacist, was a distinguished Danville citizen and was instrumental in maintaining a high level of professionalism in the field of pharmacy, also serving as president of the Virginia Pharmaceutical Association.

Dr. Updike is a fourth generation Virginia physician. His paternal great uncle, Dr. Elliott T. Brady, was an early radiologist in Abingdon and was President of The Medical Society of Virginia in 1910. On his mother's side, a great-grandfather was a country doctor in Pittsylvania County; he was Dr. W. S. Robertson, and he had two sons, Drs. W.W. and Luther A. Robertson, who practiced in Danville, and a grandson, Dr. E. B. Robertson, who was one of Danville's first internists. Yet another physician on the maternal side of Dr. Updike's family tree is a cousin, Dr. John H. Vansant, Norfolk surgeon.

Elliott T. Brady, MD,
President, 1910-1911,
The Medical Society of Virginia

Following graduation in 1950 from the University of Virginia School of Medicine, where he had also obtained his undergraduate training, Glenn Updike completed his internship and a year of surgical residency at Strong Memorial Hospital in Rochester, New York. He then saw active duty in the United States Navy, serving on the carrier Midway. Returning to the University of Virginia, he completed his residency in obstetrics and

Alan Dalton

Glenn B. Updike, Jr., MD,
President, 1987-1988, The Medical Society of Virginia

gynecology and entered private practice in Danville in 1958, limiting his practice to gynecology in 1986.

He is an honorary member of Alpha Omega Alpha, a member of the Raven Society, a diplomate of the American Board of Obstetrics and Gynecology, and a fellow of the American College of Surgeons and the American College of Obstetrics and Gynecology.

For The Medical Society of Virginia Glenn Updike served in the House of Delegates for over 25 years and for ten years was chairman of the Legislative Committee, a role in which he excelled. As 5th district councilor for six years he sat on numerous committees, and in 1985 he was elected First Vice President. In 1986, on becoming President Elect, he was elected an alternate MSV delegate to the American Medical Association.

For the University of Virginia and its School of Medicine he has been a member of the board of visitors and the University of Virginia Hospital Advisory Board, president of the Medical Alumni Assocation, vice chairman of the Medical Alumni Advisory Committee, and, for seven years, president of the University of Virginia Medical School Foundation.

In Danville, Dr. Updike has served as chairman of the board of trustees of Stratford College and has assumed a leadership role in numerous health and civic organizations, including the presidency of the Danville-Pittsylvania United Way.

Long active in state and local politics, Dr. Updike was chairman of the Danville City Democratic Committee from 1964 to 1970, resigning to become 5th district campaign coordinator for "Virginians for Byrd," when Sen. Harry F. Byrd, Jr., ran as an independent. He repeated this key role for Senator Byrd in the elections of 1976 and served in the same capacity for Gov. Mills Godwin in 1973 and for Gov. John Dalton in 1977.

In 1950 Dr. Updike married Elizabeth Vaughan Boatwright, also a native of Danville. They have a daughter and two sons.

Glenn Updike is a man of sound judgment, incisive mind, and a keen sense of propriety. His trenchant analysis of problems and his practical approaches to solving them have made his advice much sought after on a wide range of issues. The year of his MSV presidency promises to be an eventful one, with many problems to be surmounted. Surely he will carry with him the affectionate best wishes of all of us.

EDWIN J. HARVIE, JR., MD

101 Holbrook Street
Danville VA 24541

Our New President

FROM Dr. Harvie's comprehensive presentation of the incoming Medical Society of Virginia President, Glenn Updike, MD, published above, it will be evident to our readers that the Society remains in good hands.

This writer has had the privilege of knowing our new President for a number of years. He concurs.

E.L.K., Jr.

Years of Accomplishment

ON January 1, 1988, Dr. William H. Muller, Jr., will retire as Vice President for Health Affairs, University of Virginia. The occasion will mark the close of one phase of an outstanding career.

Harry Muller is a leader. *Helix*, the University of Virginia Medical Center quarterly, has called him "the Master Builder." He is all that, and more. It is true that his ten-year stint as leader of the University of Virginia School of Medicine has culminated in one of his major achievements, the planning and building of the new, almost-completed university hospital. But this feat is only one of Dr. Muller's many accomplishments. He is an internationally recognized pioneer in open heart surgery, best known for his work in heart valve replacement research and surgery. He was chairman of the University of Virginia Department of Surgery for 27 years, 1954-1981. (During a four-year period he was both Vice President for Health Affairs and chairman of the Department of Surgery). He is an outstanding teacher. He has held almost every pertinent professional society office, including chairman of the Board of Regents and President of the American College of Surgeons, president of the American Surgical Association, president of the Southern Surgical Association, president of the Society for Vascular Surgery, president of the Society of University Surgeons and vice president of the International Cardiovascular Society. He has served as a member of the Board of Trustees, Duke University, and has been named a trustee emeritus. Dr. Muller is also a recipient of the Thomas Jefferson Award, the highest attainable honor at the University of Virginia.

Harry Muller indeed is a leader. His accomplishments are many and he will be greatly missed. His many friends wish him well.

E.L.K., Jr.

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OBITUARY

• **W. Leonard Weyl, MD,** Arlington surgeon; University of Illinois School of Medicine, 1945; age 66, died November 5, 1987, at his home in McLean after heart bypass surgery. Long a leader in organized medicine, Dr. Weyl was President of The Medical Society of Virginia in 1976-1977. Details of his life are to be published in the January issue.

• **Silas O. Binns, MD,** Hampton urologist; Howard University, 1945; age 66; died June 21, 1987.

• **Maurice Eubanks Broadas Owens, Jr., MD;** Richmond allergist; Medical College of Virginia, 1939; age 73; died October 6, 1987.

Memoir of F. C. Bedsaul 1900-1987

By Garry H. Kuiken, MD

Frazier Clyde Bedsaul, MD, who served Floyd County, Virginia, for 50 years as a family physician, died September 2, 1987. Dr. Bedsaul, known in the community simply as "Doctor", was born on a farm in Carroll County. He attended the College of William and Mary and was a 1926 graduate of the Medical College of Virginia.

Doctor practiced briefly in Fluvanna, Grayson and Carrol Counties before moving with his wife, the former Rosamond Vaughan, to Floyd in 1932. It was here that he became a model of the country doctor, practicing out of his town office and also making housecalls 24 hours a day in all weather and on the most treacherous roads over the mountains and into the hollows of the Blue Ridge. Home deliveries were a routine event. He also served as county coroner from 1944 until his retirement in 1982.

Along with his busy medical practice, Doctor enjoyed inventing items for home use, including his many bird feeders with which he monitored seasonal migration patterns. He authored the book *Spring Valley*, based on the life of his wife's father, and he was a devoted and active member of the Floyd United Methodist Church, where he served on several boards.

In addition to his 50-year membership in the American Medical Association, Doctor was also a member of the Virginia and American Academies of Family Physicians, Roanoke Academy of Medicine, Southwest Virginia Medical Society, and The Medical Society of Virginia.

It was common practice for Doctor to prescribe not only medication, but also advice for a better life. He attributed his own vitality and longevity to a few basic rules: abstinence from alcohol and tobacco, a careful diet, stress management and "faith in the Lord to take care of me." Doctor is missed but fondly remembered by his family, friends and patients.

Memoir of R. H. Greenstein 1910-1987

By A. Sidney Barritt III, MD

Dr. Raphael Greenstein died in Roanoke on July 27, 1987. He was born in Philadelphia on February 11, 1910, and received his undergraduate education at the University of Pennsylvania, winning a BA in 1930. Only three years later, in 1933, Penn awarded him an MD, and it was no surprise that he was also elected to AOA.

"Raph" chose internal medicine as his life's work and remained in Philadelphia to train at Mr. Sinai for three years. Following his year as chief resident, his mentors recognized his exceptional promise as an internist and awarded him a traveling fellowship which he used to study cardiology with Henry Christian and Sam Levine at Peter Bent Brigham Hospital and gastroenterology with Sir Arthur Hurst at Guy's Hospital in London. Returning to Philadelphia, he began the practice of internal medicine. World War II interrupted this; Raph served in the Army Medical Corps for three and a half years, finishing with the rank of major. After the war, he resumed his practice and with his wife Fannette, began to raise a family. He also found time to teach, remaining active as an associate professor on the faculty of the Graduate Hospital of the University of Pennsylvania; to write, publishing short articles that are models of clinical observation; and to administer, serving for a time as chairman of the medical staff of Albert Einstein Medical Center. Raph took on many tasks and did them all with a firm and competent hand and with a generous, even tempered spirit.

Times changed. With family grown, the Greensteins looked for a different place to live where Raph could continue his scholarly practice of medicine. They found it in Blacksburg, where he ministered to the needs of the VPI student community. Practice there was rewarding, but Raph missed the challenge that ready contact with medical students and house staff brings. Thus he found the Salem VA—happily for him, because he could practice and teach and write for another decade, and happily for the Veterans Adminis-

tration, which needed his vigorous leadership as chief of ambulatory care.

Raph was generous to a fault, sharing time with patients who needed his care and with his younger colleagues whose youth needed his wisdom and maturity.He was a life fellow of the American College of Physicians. Outside medicine, his interests ranged widely: sports, meterology and history.

His career in medicine was inseparable from his life. Both epitomized the ideal of service to the community. Both remain a continuing inspiration.

Memoir of A. R. Coppola 1918-1987

By Hawes Campbell III, MD

Dr. A. R. Coppola died on September 14, 1987, after a long and courageous battle with lung cancer. He had served the people of the Virginia Peninsula as neurologic surgeon for more than 30 years. His immense skill and dedication will be long remembered by his patients and colleagues.

"Cap" was born in Patterson, New Jersey. He received a BA degree from Brothers College of Drew University in 1940 and his MD degree from the Johns Hopkins Medical School in 1943. He completed a general surgery residency in Baltimore in 1946 and did general practice in Chestertown, Maryland, until 1948. He completed a neurosurgical residency in Cincinnati, Ohio, in 1951 and then spent two years as chief of neurosurgery at the U.S. Army Hospital at Camp Pickett, Virginia.

Moving to the Peninsula, Cap began the private practice of neurosurgery in 1953 and for the next seven years was the only neurosurgeon on the Peninsula, practicing at Riverside, Whittaker, Dixie, Mary Immaculate, and the Kecoughtan Veterans Administration hospitals. He was quite active in the teaching program at Riverside Hospital, participating in the training of general and family practice residents. His memberships in medical associations and societies were too numerous to mention here.

He retired from active practice in 1984 but remained on the board of trustees at Mary Immaculate Hospital, serving as board chairman from 1985 until shortly before his death. He was regent for the State of Virginia for the International College of Surgeons for approximately five years and belonged to the College of Neurologic Surgeons for over 20 years, retiring from both organizations as an honorary member.

Cap loved teaching and was at his best in the one-on-one, bedside instruction that is common to the neurosurgical profession. He was the author of numerous papers related to his specialty and was a frequent contributor to this journal. He was also a talented musician and for years played violin with the Peninsula Symphony Orchestra.

He is survived by his wife, Grace Moore Coppola; two daughters, Sherry Birk and Grace Rutledge, both of Arlington, Virginia; and three grandchildren.

Cap's impish humor and courtly charm were contagious. His concern and candor were reassuring. He will be fondly remembered and sorely missed.

Memoir of B. H. Martin, Jr. 1913-1987

By William D. Rusher, MD, Fleming W. Gill, MD, and Leroy Smith, MD

Dr. Berkeley H. Martin, Jr., died unexpectedly on February 27, 1987. He was born in Westhampton, the son of Dr. Berkeley and Mrs. Neville Watkins Martin.

He attended public schools in the Richmond area, graduated from the University of Richmond in 1937, and received his medical degree from the Medical College of Virginia. After interning at Norfolk General Hospital, he was engaged in general practice for several years with his father in Richmond. He specialized in ophthalmology at the Episcopal Eye and Ear Hospital in Washington DC, was elected diplomate in 1956 and practiced in the Lee Medical Building until his death. During World War II he served with distinction in the army in the Burma-India theater. He was a member of the Richmond Academy of Medicine, The Medical Society of Virginia, the American Medical Association and the American Academy of Ophthalmology.

"Berk" had a zest for life, an insatiable curiosity and enthusiasm that was contagious. He developed broad knowledge about natural phenomena, especially astronomy, and went all over the world to view eclipses of the sun. He was fascinated by everything mechanical and shortly before his death built a working steam engine out of beverage cans. Berk was an avid gardener, an expert photographer and a licensed short-wave radio operator. He traveled extensively, at home and abroad.

As a true renaissance man, he was a life-long member of Westhampton Baptist Church, where he served as Sunday school teacher, deacon and trustee.

Berk was the epitome of the caring physician. His kind manner endeared him to his patients who were inspired by his competence. His death has left an eternal void in the hearts of his family, friends and patients. Many people have grown because their lives were touched by Berkeley Martin.

He is survived by his wife, Jane Langhorne Martin; two daughters, Barbara M. Neaves and Linda Jane Martin; a son, John Watkins Martin; two sisters.

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KEY TO ABBREVIATIONS

b—book review
cr—committee report
ed—editorial
h—history
in—interview
le—letter to editor
m—memoir
*—medical article
mb—medibytes
par—public affairs report
pv—point of view
s—speech
sa—special article
ww—who's who

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